

Welcome from the President

Welcome to Northwest Florida State College! We are honored you chose our college to further your education. At NWF State College, our mission is YOU! We are committed to helping all our students achieve their goals for education and career success.

Every day we work to create a better experience for students- one that is focused on moving you toward success. This is why we exist, and that is why we serve. We are all about making a significant IMPACT, including more emphasis on creating clear, unobstructed pathways toward student success. We've been working on transformational changes to improve the quality of place and the quality of life at Northwest Florida State College and within our communities.

NWF State College provides the advantages of affordability, excellence and access locally. Our college consistently achieves national rankings for excellence in academics, athletics and arts. We provide a full college experience that blends academic and co-curricular interests in a flexible, convenient and customized schedule. NWF State College employees are excited about the potential, the possibilities, and the promise that exists for our students and the region of Northwest Florida.

Most importantly, we are excited that you've chosen our great college to further your education and reach your career goals!

Again, thank you for choosing Northwest Florida State College!

Dr. Devin Stephenson, President

Northwest Florida State College

#TheBestisOurStandard

College Campuses and Centers

Chautauqua Center	South Walton Center	Fort Walton Beach Campus	Robert L. F. Sikes Education Center	Hurlburt Center

Campus Maps

See the Campus Maps page on our website for more information.

College Locations

Niceville Campus	(850) 678- 5111
	100 College Blvd. East, Niceville, FL 32578
Fort Walton Beach Campus	(850) 863- 6500
	1170 Martin Luther King Jr. Blvd., Fort Walton Beach, FL 32547
Chautauqua Center, DeFuniak Springs	(850) 200- 4100 or (850) 892- 8100
	908 U.S. Highway 90 West, DeFuniak

Robert L. F. Sikes Education Center, Crestview

Springs, FL
32433

(850)
200-
4141
or
(850)
689-
7911

805 E. James
Lee Blvd.,
(U.S. Hwy.
90),
Crestview, FL
32539

Hurlburt Field Education Center

(850)
200-
4190
or
(850)
884-
6296

Education
Services
Building
90220, 221
Lukasik
Avenue,
Hurlburt Field,
FL 32544

South Walton Center

(850)
200-
4160
or
(850)
267-
2888

109 Greenway
Trail (off Hwy.
331 South),
Santa Rosa
Beach, FL
32459

Academic Calendar

Fall Semester 2019

Spring Semester 2020

Summer Semester 2020

Fall Semester 2019 (202010)

Registration - Current Students	Apr 1		
Registration - Open Enrollment (New, Dual, and Readmitted)	Apr 8		
Financial aid (FAFSA) priority ¹ deadline	May 15		
Financial Aid disbursement date	Sep 10		
VA deferment date	Oct 19	Sep 30	Oct 19
Tuition Payment Plan (NelNet) Enrollment Period	Jul 1 - Aug 15		
Tuition Payment Deadlines (Due by 6AM ²)	Jul 31, Aug 14, Aug 21, Aug 27		
Financial Aid Book Sales at College Store	Jul 29 - Sep 4		
Admissions priority ¹ deadline	Jul 1		
Deadline to submit documentation to qualify for in-state residency	Aug 18		Oct 10
Deadline to Enroll in Class Wait List	Aug 25		Oct 17
	Session 1	Session 2	Session 3
	(Full Term)	(1st Half of Term)	(2nd Half of Term)
First Day of Classes	Aug 19	Aug 19	Oct 11
Schedule Adjustment(Drop/Add) Period	Aug 19 - Aug 26	Aug 19 - Aug 26	Oct 11 - Oct 18
Midterm grades posted ³	Oct 14		
Last Day to Withdraw or Change to Audit	Nov 1	Sep 25	Nov 23

Last Day of Classes	Dec 6	Oct 9	Dec 6
Final Exams	Dec 9 - Dec 13	Last Day of Classes	Last Day of Classes
Last Day of Term for Students	Dec 13	Oct 9	Dec 13
Final grades posted ³	Dec 16	Oct 10	Dec 16

Holidays (College Closed) - Fall 2019

	Sep 2	Labor Day	
	Nov 11	Veterans' Day	
	Nov 27 - Dec 1	Thanksgiving Break	
	Dec 17 - Jan 1	Winter Holiday Break	
Faculty return to campus	Aug 14		
Last day of term for Faculty	Dec 16	Oct 10	Dec 16

Spring Semester 2020 (202020)

Registration - Current Students		Nov 4	
Registration - Open Enrollment (New, Dual, and Readmitted)		Nov 13	
Financial aid (FAFSA) priority ¹ deadline		Oct 1	
Financial Aid disbursement date		Feb 4	
VA deferment date	Mar 9	Feb 21	Mar 9
Tuition Payment Plan (NelNet) Enrollment Period		Nov 4 - Jan 6	
Tuition Payment Deadlines (Due by 6AM ²)		Dec 11, Jan 9, Jan 16	
Financial Aid Book Sales at College Store		Dec 2 - Jan 22	
Admissions priority ¹ deadline		Nov 1	

Deadline to submit documentation to qualify for in-state residency	Jan 7		Mar 3
Deadline to Enroll in Class Wait List	Jan 14		Mar 10
	Session 1	Session 2	Session 3
	(Full Term)	(1st Half of Term)	(2nd Half of Term)
First Day of Classes	Jan 8	Jan 8	Mar 4
Schedule Adjustment (Drop/Add) Period	Jan 8 - Jan 15	Jan 8 - Jan 15	Mar 4 - Mar 11
Midterm grades posted ³	Mar 9		
Last Day to Withdraw or Change to Audit	Mar 27	Feb 13	Apr 15
Last Day of Classes	Apr 28	Mar 2	Apr 28
Final Exams	Apr 29 - May 5	Last Day of Classes	Last Day of Classes
Commencement	May 2		
Last Day of Term for Students	May 5	Mar 2	May 5
Final grades posted ³	May 6	Mar 3	May 6
Holidays (College Closed) - Spring 2020	Jan 20	Martin Luther King Jr. Day	
	Mar 16-22	Spring Break	
NWF Staff return to campus	Jan 2		
Faculty return to campus	Jan 6		
Last day of term for Faculty	May 6	Mar 3	May 6

Summer Semester 2020 (202030)

Registration - Current Students	Apr 6

Registration - Open Enrollment (New, Dual, and Readmitted)	Apr 13			
Financial aid (FAFSA) priority ¹ deadline	Feb 1			
Financial Aid disbursement date	Jun 8			
VA deferment date	Jul 17	Jun 15	Jul 17	Jul 17
Tuition Payment Plan (NelNet) Enrollment Period	Apr 6 - May 15			
Tuition Payment Deadlines (Due by 6AM ²)	To be Announced			
Financial Aid Book Sales at College Store	Apr 27 - May 29			
Admissions priority ¹ deadline	Apr 1			
Deadline to submit documentation to qualify for in- state residency	May 17		Jun 28	Jun 14
Deadline to Enroll in Class Wait List	May 25		Jul 5	Jun 21
	Session 1	Session 2	Session 3	Session 4
	(Full Term)	(1st Half of Term)	(2nd Half of Term)	(Late-Starting)
First Day of Classes	May 18	May 18	Jun 29	Jun 15
Schedule Adjustment (Drop/Add) Period	May 18 - May 26	May 18 - May 26	Jun 29 - Jul 6	Jun 15 - Jun 22
Last Day to Withdraw or Change to Audit	Jul 13	Jun 11	Jul 24	Jul 21
Last Day of Classes	Aug 7	Jun 25	Aug 7	Aug 7
Final Exams	Last Day of Classes	Last Day of Classes	Last Day of Classes	Last Day of Classes
Last Day of Term for Students	Aug 7	Jun 25	Aug 7	Aug 7

Final grades posted ³	Aug 10	Jun 26	Aug 10	Aug 10

**Holidays (College Closed) -
Summer 2020**

May 25	Memorial Day

Jul 3	Independence Day (observed)

Last day of term for Faculty	Aug 10	Jun 26	Aug 10	Aug 10

¹Meeting priority deadlines ensures paperwork is processed prior to first day of class; applications are still accepted after the priority deadline and processed in order of receipt.

²Students may pay fees in RaiderNet by clicking on the "Pay Fees" tab.

³Preferably, faculty will submit course grades within 24 hours of each final exam. All grades are required to the Registrar by 11 am on the day final grades are posted.

Approved by Board of Trustees Feb. 2019

Contact NWF State College

Raider Central

(Admissions, Records, Registration, Academic Advising, Financial Aid)

850-678-5111

studentsuccess@nwfsc.edu

Business Office

850-729-5385

IT Help Desk

ithelpdesk@nwfsc.edu

Adult Education

(ABE, GED and English for Speakers of Other Languages ESOL)

850-729-5387

Academic Departmental Offices

Advanced Technology and Design (850) 729-5218

Athletics, Health, and Fitness (850) 729-5379

BAS/Business (850) 729-5369

Medical Coding (850) 729-5369

Child Development (850) 729-6081

Computer Science (850) 729-5369

Education (850) 729-6440

English/Communications (850) 729-5390

Health Sciences

Dental Assisting (850) 729-6444

Nursing: AS (850) 729-6400

Nursing: RN to BSN (850) 729-6444

Radiography (850) 729-6444

Humanities, Fine & Performing Arts (850) 729-5382

Mathematics (850) 729-5377

Public Safety (850) 729-5378

Emergency Services (EMS) (850) 729-5378

Emergency Medical Technician (EMT) (850) 729-5378

Health Services Management (850) 729-6444

Law Enforcement and Corrections Academies (850) 729-5378

Paramedic (850) 729-5378

Sciences (850) 729-5376

Social Sciences (850) 729-5391

Where To Go For Assistance A to Z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

Academic Success Center

Niceville Campus, Myers LRC, Bldg. 500, (850) 729-5389

Chautauqua Center, DeFuniak Springs, Room 217, (850) 200-4118

Web - <https://www.nwfsc.edu/Students/Campus-Services/Free-Tutoring>

Accessibility and Disability Support Services

Americans with Disability Act (ADA) Coordinators

Students: Accommodation Resource Center

Niceville Campus, Activities Center, Bldg. 410, (850) 729-6079

Web - <https://www.nwfsc.edu/students/accommodations/>

Employees and General Public

Executive Director of Human Resources and Equity Coordinator, Niceville Campus, Administration Bldg. 320, (850) 729-5365

Web - <https://www.nwfsc.edu/about/compliance/>

Academic Advising

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-5234

Web - <http://www.nwfsc.edu/Students/Advising/>

Admissions

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-4901

Web - <http://www.nwfsc.edu/Students/Enrollment/Admissions/>

Adult Education and Literacy

Adult Basic Education, GED, English for Speakers of Other Languages (ESOL)

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-5387

Web - <https://www.nwfsc.edu/academics/non-degree-programs/adult-ed/>

Alumni Association

Niceville Campus, Administration Bldg. 320, (850) 729-5357

Web - <http://www.nwfscfoundation.org/Alumni/Association.cfm>

AmeriCorps/Service Learning: NWF Environmental Stewards,

South Walton Center, (850) 729-6037

Web - <http://www.nwfsc.edu/Community/Americorps/>

Athletics

Director of Athletics

Niceville Campus, Bldg. 200, (850) 729-5379

Web - <http://www.nwfraiders.com/landing/index>

B

Baccalaureate Programs

BAS – Bachelor of Applied Science Programs, Niceville Campus, Bldg. 360, Room 121, (850) 729-4900

BSE – Bachelor of Science Teacher Education Programs, Niceville Campus, Bldg. 520, Room 140, (850) 729-6440

BSE – Bachelor of Science Early Childhood Education, Niceville Campus, Bldg. 520, Room 140, (850) 729-6440

BSN – Bachelor of Science in Nursing, Niceville Campus, Bldg. 420, (850) 729-6444

Web - www.nwfsc.edu/Bachelor

Books & Classroom Supplies

Barnes and Noble College Store

Fort Walton Beach Campus, Bldg. 2, (850) 863-6511

Niceville Campus, Activities Center, Bldg. 410, (850) 729-5384

Web - <http://nwfsc.bncollege.com>

C**Campus Security**

"9-1-1" At any location, 911 or "9+911"

Niceville Campus Security, (850) 582-9119 or 911

Fort Walton Beach Campus Security, (850) 863-6537 or 911

Crestview Center, (850) 826-1895 or 911

Chautauqua Center, DeFuniak Springs, 911

Hurlburt (night monitor), (850) 200-4190 or 911

South Walton Center, 911

Child Care

Mary Lou O' Connor Child Development and Education Center

Niceville Campus, Bldg. 530, (850) 729-5386

Web - <http://www.nwfsc.edu/Academics/Departments/Education/EarlyChildEd/childdevedcenter.cfm>

Clubs

Student Life

Niceville Campus, Activities Center, Bldg. 410, (850) 729-5348

Web - <http://www.nwfsc.edu/Students/StudentLife/>

Collegiate High School

Niceville Campus, Bldg. 340, (850) 729-4949

Web - www.nwfcollegiatehigh.org

Computer and Learning Labs

Web - <http://www.nwfsc.edu/Academics/AcademicSupport/OpenCompLabs.cfm>

Chautauqua Center, DeFuniak Springs

- Skills Lab, Room 202, (850) 892-8100

Fort Walton Beach Campus

- Computer Lab, Bldg. 7, Room 752, (850) 863-6530
- English Tutor, Bldg. 7, Room 752, (850) 729-5389
- Math Lab, Bldg. 7, Room 702, (850) 863-6520

Niceville Campus

- Susan Myers Learning Resources Center, Bldg. 500, (850) 729-5389

Web - <https://www.nwfsc.edu/students/campus-services/free-tutoring/>

Library (850) 729-5318

Web - <http://lrc.nwfsc.edu>

- Advanced Technical & Design Labs, Bldg. 310, (850) 729-5216
 - CAD Labs, Rooms 100 & 107
 - CISCO Lab, Room 105
 - A+ Hardware/Software, Room 114
 - Microsoft Labs, Rooms 103 & 110
- Math Lab, Bldg. 300, Room 131, (850) 729-5377

- Science Lab, Bldg. 350, Room 118, (850) 729-5376

Robert L. F. Sikes Education Center, Crestview

- Computer Lab, Rooms 109 & 303, (850) 729-5346 or (850) 689-7911

South Walton Center

- Computer Lab, Room 123, (850) 200-4160

Continuing Education (Kids on Campus and PRIME Time)

Continuing Education, Niceville Campus, Student Services Center, Bldg. 400, (850) 729-6085

Web - <http://www.nwfsc.edu/Community/ContEd/PersonalEnrichment.cfm>

Costa Leadership Institute

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-6880

Web - <http://www.nwfsc.edu/Community/ContEd/LI/>

Criminal Justice Training Center

Public Safety Division, Niceville Campus, Bldg. 510, (850) 729-5378

Web - <http://www.nwfsc.edu/Academics/Departments/PublicSafety/CriminalJusticeTrainingCenter/>

D

Dual Enrollment

Niceville Campus, Dual Enrollment, Student Services Center, Bldg. 400, (850) 729-5205

Web - <http://www.nwfsc.edu/Students/Enrollment/Admissions/Dual/>

E

eCampus/Distance Learning

Niceville Campus, Bldg. 430, (850) 729-6464

Web - eCampus.nwfsc.edu

Email: Students, Faculty and Staff

IT Help Desk (850) 729-5396

Web IT Help Desk - helpdesk@nwfsc.edu

Enrollment

Niceville Campus, Student Services Center, Bldg. 400 (850) 729-4901

Web - RaiderNet

F

Financial Aid

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-5370

Web - <http://www.nwfsc.edu/Students/PayingforCollege/FinancialAid/>

Foundation

Niceville Campus, Administration Bldg. 320, (850) 729-5357

Web - <http://www.nwfscfoundation.org/>

H

Health Sciences Programs

Web - <http://www.nwfsc.edu/Academics/Departments/HealthSciences/>

- Dental Assisting, Niceville Campus, Bldg. 420, (850) 729-6444
- Nursing (ASN), Niceville Campus, Bldg. 420, (850) 729-6400
- Nursing (BSN), Niceville Campus, Bldg. 420, (850) 729-6444
- Radiography, Niceville Campus, Bldg. 420, (850) 729-6444

I

International Student Affairs

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-5319

IT Helpdesk

Niceville Campus, Bldg. 430, (850) 729-5396, helpdesk@nwfsc.edu

L

Libraries (Susan Myers Learning Resources Center)

Niceville Campus, Building 500, (850) 729-5318

Fort Walton Beach Campus, Building 8, (850) 863-6578

Web - lrc.nwfsc.edu

Ask-a-Librarian -

<https://askalibrarian.org/local.php?LibraryName=Northwest%20Florida%20State%20College&DepartmentNumber=22871>

Lost & Found

Niceville Campus, Raider Life, Activities Center, Bldg. 410 (850) 729-5348

Fort Walton Beach Campus, Bldg. 2 (850) 863-6504

Chautauqua Center, DeFuniak Springs, Building 1, Room 140, (850) 892-8100

O

Ombudsman

Raider Life

Niceville Campus, Activities Center, Bldg. 410 (850) 729-5277

Email - ombudsman@nwfsc.edu

P

Parking Permits

Niceville Campus, Raider Life, Activities Center, Bldg 410 (850) 729-5348

Chautauqua Center, DeFuniak Springs, Building 1, Room 140, (850) 892-8100

Other campuses and centers see General Information

Web - <http://www.nwfsc.edu/Students/StudentLife/RaiderCardParking.cfm>

Public Relations & Marketing

Office of Marketing/Public Relations,

Niceville Campus, Bldg. 320, (850) 729-5362

R

RaiderCard

Student Life, Niceville Campus, Activities Center, Bldg. 410 (850) 729-5348

Fort Walton Beach Campus, Bldg. 1, (850) 863-6504

Chautauqua Center, DeFuniak Springs, Building 1, Room 140, (850) 892-8100

Web - <http://www.nwfsc.edu/Students/StudentLife/RaiderCardParking.cfm>

Reserving College Facilities

Niceville Campus, Student Services Center, Bldg. 400 (850) 729-5366

S

Scholarships

Financial Aid Office

Niceville Campus, Student Services Center, Bldg. 400 (850) 729-5370

Foundation, Niceville Campus, Bldg. 320 (850) 729-5357

Financial Aid Web - www.nwfsc.edu/financialaid

Foundation Web - <http://www.nwfscfoundation.org/DonorsWaystoGive/GiftOptions.cfm#scholar>

Student Grievances/Harassment

Dean of Students, Niceville Campus, Student Services Center, Bldg. 400 (850) 729-5379

Student Records

Niceville Campus, Student Services Center, Bldg. 400 (850) 729-4901

Student Work

Career Center, Niceville Campus, Activities Center - Bldg. 410, Room 129 (850) 729-5227

Financial Aid, Niceville Campus, Student Services Center, Bldg. 400 (850) 729-5370

T**Telephone Device for the Deaf (TDD) #'s:**

Voice, 711 or 1-800-955-8770

TDD, 711 or 1-800-955-8771

Technical/Professional Education**Advanced Technology and Design Department**

Niceville Campus, Bldg. 310, (850) 729-5218

Web - <http://www.nwfsc.edu/Academics/Departments/AdvTechDesign/>

Testing

Testing Center, Niceville Campus, Student Services Center, Bldg 400, (850) 729-6016

Other campuses and centers see General Information

Web - <http://www.nwfsc.edu/Students/Enrollment/TestingCenter/>

Tours

College Life & Campus Tours, Bldg. Student Services Center, Bldg 400, (850) 729-6922

Tutoring

Web - <http://www.nwfsc.edu/Academics/AcademicSupport/MathLabs.cfm>

Niceville Campus

- Niceville Campus, Activities Center, Bldg 410, (850) 729-5389 or (850) 729-5330
- Free Math tutoring, Math Lab, Bldg. 300, Room 131, (850) 729-5377

Chautauqua Center, DeFuniak Springs, Room 217, (850) 729-5389

Fort Walton Beach Campus, Free Math tutoring, Math Lab, Bldg. 7, Room 702, (850) 863-6520

Transcripts

Niceville Campus, Student Services Center, Bldg. 400, (850) 729-4901

Unofficial - RaiderNet

Request Official Transcripts: - RaiderNet

Transcript requests may also be submitted at all college locations.

Transient Students

Niceville Campus, Admissions, Student Services Center, Bldg. 400, (850) 729-4901

Web (for FL public institutions) - <http://www.floridashines.org>

Transient student forms may be obtained and submitted at all college locations.

V**Veteran's Affairs**

Niceville Campus, Financial Aid, Student Services Center, Bldg. 400 (850) 729-5375

Web - <http://www.nwfsc.edu/Students/PayingforCollege/FinancialAid/veterans.cfm>

Paying for College

Full payment of tuition and fees is required when registering for classes at NWF State College. Payment due dates are printed on the student's registration receipt and on RaiderNet. Payment may be made using cash, check, e-check, MasterCard, Visa, American Express, or Discover credit cards. Students who have not paid their fees will not be admitted to classes and will be dropped from their classes on their payment due date. The College may grant deferments as specifically defined by Florida Statutes.

Fees

Current fees are available from the College Business Office and are published in the class schedule. These fees apply whenever applicable, except: (1) for courses in which complimentary instructional services or equivalent program costs are provided by appropriate persons, agencies or organizations; or (2) when specifically waived by the Board of Trustees. Active Duty Military and their dependents pay only Florida Resident, in-state fees, see the residency portion of the catalog.

Fees Subject to Change by Action of the Florida Legislature and the NWF State College Board of Trustees without notice.

	Instate Tuition per credit hour	Border State (Alabama) Tuition per credit hour	Out-of-State Tuition per credit hour
Baccalaureate (College Credit)	\$122.59	\$123.59	\$450.86
Advanced & Professional (College Credit)	\$104.01	\$105.01	398.02
Postsecondary Voc. (College Credit)	\$104.01	\$105.01	398.02
Developmental	\$104.01	\$105.01	398.02
Postsecondary Adult Vocational (Voc. Credit)	\$86.10	\$87.10	344.10
Adult Basic & Adult Secondary	\$30.00	\$30.00	30.00

Laboratory and Special Tuition Fees exist to cover unique costs related to a given course. The amount is determined course-by-course and is based on the instructional costs for each. A fee schedule is on file in the Business Office and is printed in the class schedule each session.

Full Cost of Instruction for Third Attempt

College credit and developmental course enrollments beginning with the third attempt in the same course pay the full cost of instruction (based on action by the Florida Legislature).

RaiderCards

The RaiderCard is a student identification card that is issued to college credit students after tuition fees are paid. There is a \$15 fee per term. Lost or damaged cards may be replaced for a \$15 charge.

Other Fees and Charges

Continuing Workforce Education	At Full Cost of Instruction
Distance Learning Fee	\$15.00 per credit hour
Hybrid Learning Fee	\$9.00 per credit hour
Late Registration Fee (during Schedule Adjustment Period)	\$25.00 per term
Library Fines	
Late fee	\$0.20 per day
Lost Book Charge	Actual cost of replacement (if available) or \$25.00 plus \$5.00 processing fee
Recreational & Leisure Courses	At Full Cost of Instruction
Reinstatement Fee*	\$25.00
Returned Check Fee*	\$25.00
Special Service Charges	At Cost
Student Access Fee**	
Per semester fee	\$15.00
Replacement fee	\$15.00
Transcript Fee (per transcript)	\$10.00 electronic or \$15.00 paper

*Students who are administratively withdrawn from class due to late payment or non-payment of fees, loans or deferments or a dishonored check will be charged a \$25.00 reinstatement fee.

** Student Access Fee is required of all college credit students.

Course Fees

In accordance with Florida Statute 1009.23 (12)(a), course and lab fees are adjusted each year upon board approval. These fees cover expenses unique to course offerings such as laboratory fees, standardized testing fees, and other direct course level expenditures. To view course and lab fees, visit NWF Class Search.

Testing Fees*Online Payments

Credit card payments are not accepted in person at any of our campuses or centers. Online credit card payments through CashNet SmartPay will have an added convenience fee of 2.75%. Online E-check payments can be made at no extra charge.

Admission Assessment Exam for Health Programs (HESI)

Required of Radiography and RN Students	\$40.00
College Level Exam Program (CLEP)	
Exam Fee \$80.00/Administration Fee \$20.00	\$100.00
Course Challenge Exam	\$100.00
DSST Exams (formerly DANTES)	
Exam Fee \$80.00/Administration Fee \$20.00	\$100.00
FBAT Test	\$35.00
GED Test	
Complete Battery	\$128.00
Individual Modules	\$32.00
PERT	
Non-NWF State College students or repeat attempts by NWFSC students (There is no charge for the first attempt for students enrolling at NWF State College.)	\$10.00
Proctoring (Other Schools)	\$30.00
TABE (Non-NWF State College Students)	\$20.00
Microsoft Office Specialist Certifications (MOS)	
(Non-NWF State College Students) Exam Fee per Section	\$62.80
Certiport Internet and Computing Core Certification (IC3)	
(Non-NWF State College Students) Exam Fee per Section	\$22.18

* Additional registration fees may apply. See Testing Services for additional information.

Parking Fines

All students, staff and faculty must register their vehicles with the College and display the parking decal when on campus. Visitors must park in designated visitor sections or obtain a visitors temporary parking permit from the Welcome Center in the Student Services Center or Student Life in the Activities Center. Parking regulation details are in the Student Handbook section of the catalog. Violating NWF State College's parking regulations may result in parking fines being assessed, the vehicle being towed, or "booted" at the owner's expense.

No Decal Fee	\$25.00
Parking Ticket	\$25.00
Tire Boot Removal Fee	\$25.00 plus parking ticket of \$25.00

Towing and Storage

Actual cost

Fines and Debts to the College

All unpaid debts, including Federal Guaranteed Student Loans, with NWF State College will result in fines being assessed or the withholding of transcripts, diplomas, certificates, and other official documents. Students will be prohibited from enrolling until all debts are paid in full. Students may be subject to liabilities for collection costs including attorney's fees.

Cost Summary

The range of basic charges for a typical full-time college-credit tuition non-baccalaureate student, per year, registered for 15 credit hours per term for two terms are noted below. Lab fees, food, housing, and travel costs depend upon the individual student's circumstances.

Florida Resident

Fees	\$3,304.00
Books and Supplies	<u>\$1,440.00</u>
	\$4,744.00

Alabama Border-State Resident

Fees	\$3,334.00
Books and Supplies	<u>\$1,440.00</u>
	\$4,774.00

Non-Florida Resident

Fees	\$11,614.00
Books and Supplies	<u>\$1,440.00</u>
	\$13,054.00

Student Tuition Payment Plan

A student tuition payment plan is available on the college website through NelNet Tuition Installment Program. NWF State College will hold academic transcripts and refuse re-enrollment to any student who is delinquent on their agreement from any preceding semester until all amounts owed on prior agreements are paid or the student is released by NelNet. Please refer to the NWF State College website for additional information or to apply for this service.

Military Assistance

Active-duty military personnel who enroll in college-credit programs through base education offices may be eligible for financial assistance. The college has Military Assistance Agreements in effect with both Eglin Air Force Base and Hurlburt Field. Contact the base education office for details.

In compliance with our Memorandum of Understanding with the Department of Defense, Military Tuition Assistance (TA) is awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of TA funds originally awarded.

To comply with the new Department of Defense policy, Northwest Florida State College will return any unearned TA funds on a prorated basis through at least the 60% portion of the period for which the funds were provided. TA funds are earned proportionally during an enrollment period, with unearned funds returned based upon when a student stops attending. These funds are returned to the military Service branch.

In instances when a Service member stops attending due to a military service obligation, the College will work with the affected Service member to identify solutions that will not result in student debt for the returned portion.

The Veterans Success Center, located in Building 500 on the Niceville campus, can assist Veterans with educational goals and resources.

Refund Policy

A student can receive a full 100% refund up to and during the schedule adjustment period for the term. Full refunds after the schedule adjustment period may be requested by completing a Refund Request Form. Only the refund requests citing the following reasons will be approved: Serious illness, military orders, circumstances beyond the student's control or administrative college error. Refund requests must be submitted before the midterm and may only apply to the current semester. The Business Office will notify the student of the request disposition within 15 business days of the date of receipt of the request. Refund checks will only be issued for \$1.00 or more. Refunds less than \$1.00 will be paid in cash at the Business Office on the Niceville Campus.

Full financial credit will be granted for cancelled classes. Students can choose to enroll in other classes to which the fees can be applied. A refund will be processed automatically if replacement classes are not selected.

Testing Fees Refund Policy

Individuals who have paid the registration fees to take the CLEP or TABE and who are unable to test at the scheduled date and time, may request to reschedule the test or may request a full refund. The rescheduled test date must occur within thirty (30) days of the first scheduled test date. Individuals who are unable to reschedule a test may request a refund within thirty (30) days after the scheduled test date. Requests for full testing fee refunds must be submitted in writing using the Refund Request form.

Dishonored Check Policy

Checks returned by the bank will be processed as follows:

1. The student will be notified by certified mail that their check was dishonored by the bank. A \$25 return check charge will be applied to the student's account.
2. The student will have seven (7) calendar days to pay for the check and the return check charge. Payment must be in the form of cash or certified funds. If any portion of the dishonored check funds includes payment of tuition and fees, failure to make the payment will result in cancellation of enrollment.
3. Reinstatement after enrollment cancellation will be considered only after full payment which will include an additional \$25 reinstatement fee.
4. The student's record at NWF State College will reflect the obligation as an outstanding debt which will result in the withholding of transcripts, diplomas, certificates, and other official documents. Students will also be prohibited from enrolling until all debts are paid in full.

5. Students who have written two or more checks with insufficient funds will be subject to disciplinary action even though their checks have been paid. The college will also suspend their check writing privileges and may report to other colleges and credit reporting agencies.
6. The college will forward unpaid dishonored checks, returned check charge, and related information about the student to a collection agency within 35 days.

General Information

Mission Statement

Northwest Florida State College improves lives. We deliver outstanding educational programs that are relevant, accessible, and engaging for students of all ages and provide exceptional cultural, athletic, and economic development activities for the communities served. We commit to excellence, creativity, integrity, and services.

Values

Northwest Florida State College Values:

- Opportunity - meeting each student's educational need at his or her level of ability
- Excellence - achieving the highest standards
- Learning - acquiring new skills, insights, and ideas
- Success - preparing students for the future
- Creativity - finding innovative ways to accomplish our objectives
- Community - listening and responding to community needs
- Teamwork - supporting and respecting each other and those we serve

Vision 2020

Vision 2020 comprises the college's mission statement of seven core values that are central to all our programs and services, and an accompanying Vision outline. Vision 2020 will focus the work of the college over the coming years and be fully incorporated into all aspects of college life. Vision 2020 was prepared following several months of discussion and work within various standing committees of the college.

Vision One: A Learning-Centered Community

Northwest Florida State College will be a college that places the teaching-learning process at the core of our existence and seeks to improve student success.

- We will assess student learning, hold ourselves accountable for learning outcomes, and invest in resources to improve student learning outcomes.
- We will use learning-focused methods that actively engage students and will seek to help students understand that they are an integral part of the teaching-learning process.
- We will provide learning environments, both in and out of the classroom, that meet student learning needs and encourage student success.

Vision Two: Access to Opportunity

Northwest Florida State College will be the gateway to higher education opportunity for students in areas we serve.

- We will provide educational opportunities at multiple sites and varying times and through alternative delivery methods that maximize the opportunity to earn an education.
- We will seek efficiency and quality while maintaining an affordable tuition level.

Vision Three: Community Engagement

Northwest Florida State College will be recognized as a critical community resource and a valuable partner in advancing cultural, economic, and educational aspirations.

- We will develop partnerships with community organizations to promote educational opportunity.
- We will provide a rich inventory of cultural, athletic, life-long learning, and academic experiences that engage community members in the life of the college.
- We will offer cultural and educational opportunities to the many constituencies we serve in a deliberate effort to broaden and enrich the lives we touch.

Vision Four: Institutional Growth

Northwest Florida State College will seek to grow strategically in areas that increase our impact on the communities we serve.

- We will increase program offerings and enrollments in baccalaureate and career/technical programs.
- We will increase the proportion of students we enroll from the communities we serve.

Vision Five: Financial Stewardship

Northwest Florida State College will be financially secure and will practice wise financial stewardship.

- We will grow the College Foundation's asset base and increase its annual impact on the college.
- We will maintain sufficient financial reserves to provide security, flexibility, and institutional innovation and development.

Vision Six: A Great Place to Work

Northwest Florida State College will be one of the leading employers in our service area by offering competitive compensation packages and investments in personal and professional development programs and will place and emphasis on job security.

- We will offer a combination of salary and benefits that allows us to recruit and retain the best possible employees.
- We will invest in the personal and professional development of our workforce and provide employees with the tools they need to do their jobs well and prepare them for future career opportunities.

College History

Northwest Florida State College is part of the Florida College System, a network of 28 public state and community colleges. NWF State College offers postsecondary education opportunities to more than 17,000 students annually. Located in the coastal heart of Northwest Florida, the college has earned a reputation for educational excellence and community involvement in its 50 year history. The college operates six area campuses and centers in Niceville, Fort Walton Beach, Crestview, DeFuniak Springs, South Walton County, and Hurlburt Field.

The Florida Legislature initially established the college, originally known as Okaloosa-Walton Junior College, as the 18th of the state's eventual 28 community colleges in 1963. The institution was named Okaloosa-Walton Junior College in March 1964 and opened for students in August 1964. The college's District Board of Trustees changed the name to Okaloosa-Walton Community College (OWCC) in March 1988 to recognize the college's expanded role in economic development, cultural programs and other endeavors. Further expansion of the college's mission occurred in April 2003 when the Florida State Board of Education authorized OWCC to develop baccalaureate degree programs. In December 2003, the Commission on Colleges of the Southern Association of Colleges and Schools

approved Level II status for the college to grant baccalaureate degrees. The college name officially changed to Okaloosa-Walton College (OWC) on July 1, 2004 to reflect the college's new status to award bachelor's degrees. The college began a Bachelor of Applied Science in Project and Acquisitions Management and a Bachelor of Science in Nursing (a joint program with the University of West Florida) in the Fall 2004 semester. In 2007, the Florida Department of Education authorized the college to add baccalaureate degrees in Teacher Education and in 2008 the college's joint Bachelor of Science in Nursing program was approved as a stand-alone BSN program to become the college's third baccalaureate program.

The 2008 Florida Legislature passed the State College Bill (SB 1716) to maximize student access to baccalaureate degrees, respond to community needs for postsecondary education, and provide the degrees that best meet Florida's employment needs. The bill was signed into law by Florida Governor Charlie Crist on June 12, 2008 at a ceremony held at the Mattie Kelly Fine and Performing Arts Center on the college's Niceville Campus. In response to Okaloosa-Walton College's new role as one of Florida's first state colleges, the OWC District Board of Trustees voted on July 8, 2008 to officially rename the institution as Northwest Florida State College. While the mission of the college has expanded, NWF State College continues its long-standing commitment to open-door admissions, associate degree programs, adult education, certificate programs, and affordable tuition. NWF State College has also maintained the school's traditional scarlet and silver colors and the Raiders name for sports programs.

The college currently offers baccalaureate programs in Project Management, Management and Supervision, Nursing, Elementary Education, Middle Grades Math Education, Middle Grades General Science Education and Early Childhood Education, Birth through Four. Additional bachelor's programs may be phased in over the coming years based on regional needs and feasibility. As NWF State College fulfills its role as a state college, students benefit from the opportunity to have accessible, low cost baccalaureate degrees that meet their aspirations as students and meet the needs of higher education in Florida.

In addition to a 264 acre campus in Niceville, NWF State College operates a joint campus with the University of West Florida in Fort Walton Beach, the Chautauqua Center in DeFuniak Springs, the Robert L. F. Sikes Education Center in Crestview, the South Walton Center in Santa Rosa Beach and a full-time center at Hurlburt Field.

When its doors first opened in August of 1964 in a temporary campus of vacant buildings in Valparaiso, OWJC had a faculty of ten instructors, three support personnel and five administrators for the 309 full-time and 458 part-time students on hand. Now, approximately 102 full-time and 293 part-time instructors, as well as 455 support staff and 16 administrators serve 17,000 students annually. Since its inception, more than 302,000 persons have been served by OWJC, OWCC, OWC and NWF State College.

Located between State Roads 85 and 285, the 264 beautifully wooded acres of the college's main campus in Niceville were transferred to OWJC from the Eglin Air Force Reservation by an Act of Congress in January 1966. In 1989, another Act of Congress designated a permanent site for the 156 acre Fort Walton Beach Campus.

Throughout the college's history, NWF State College has maintained a consistent record of educational excellence. The median grade point average for NWF State College students who transfer to the State University System consistently ranks among the top five in the state. NWF State College professors have been recognized with numerous state and national level awards for instructional excellence. The college's Forensics/Debate and Brain Bowl academic teams have achieved numerous state and national championships. NWF State College students and student athletes are also consistently named to the All-Florida Academic Teams.

In addition to a record of regional and national accolades, NWF State College offers state-of-the-art student computer labs, a top-rated sports complex, a full program of intercollegiate and intramural sports, a child development center, and a criminal justice training center. The 120,000 square foot Mattie Kelly Fine and Performing Arts Center on the Niceville Campus provides students the finest in instructional facilities for dance, music, theater, the visual arts and the humanities.

Facilities

Niceville Campus

The Niceville Campus is located between State Roads 85 and 285 off of College Boulevard. The Niceville Campus includes the following permanent facilities:

- **Activities Center (Building 410)** houses the Barnes & Noble College Store, Student Life, The Academic Success Center (ASC), the Career Center, Florida's Great Northwest, as well as, a conference room for general use.
- **Administration (Building 320)** houses the executive and administrative offices, including Academic Affairs, Administrative and Financial Services, Marketing and Public Relations, the NWF State College Foundation and the Alumni Association.
- **Business and Computer Science (Building 360)** houses facilities for instructional programs in business education, business administration, computer science, mid-management and the Bachelor of Applied Science in Project Management. The building contains the offices of the college's Business and Computer Technology Divisions and offices for the Bachelor of Applied Science degree in Project Management, including faculty offices. The building also contains the William T. Neshem, Mickey and Dottie Gilmore, and Blanche and Allyn Donaldson classrooms.
- **Classroom Building (Building 330)** houses ten state-of-the-art, general-purpose classrooms.
- **Collegiate High School (Building 340)** houses the Collegiate High School offices, classrooms and labs.
- **Community Service Complex (Arena, Emergency Operations Center, Doolittle Raiders History Exhibit) (Building 200)** a multi-purpose facility which houses the college's Division of Athletics, Health and Fitness, a 2,200 seat basketball Arena, Wellness classrooms, a Fitness Center, the Raider room, and the Col. George E. 'Bud' Day Wing of the complex. A permanent Doolittle Raiders History Exhibit is located in the lobby of the Raiders Arena to honor the WWII heroes for whom the college's athletic teams are named. The museum-quality exhibit is free of charge and open from 8:00 a.m. to 4:00 p.m. Monday to Friday and during events held in the Raiders Arena. For information on the exhibit call 729-5203. Okaloosa County's Emergency Operations Center (EOC) and 911 Call Center are also located in the complex. The entire facility is hardened to withstand 190-mph winds and the Arena may serve as a public emergency shelter.
- **Engineering Technology (Building 310)** houses drafting and design, laboratories for computer-assisted drafting (CAD) and computer-aided manufacturing (CAM), Architecture Studio for AA in Pre-Architecture, Computer Engineering Technology, IT Security, and Network Systems Technology. The building also contains the James Leslie Gibson Drafting Classroom and the college's CISCO Academy and Microsoft IT Academy.
- **English/Communications, Social Science and the Gallimore Center for Healthcare Education (Building 420)** houses the college's various healthcare education programs and a variety of other instructional programs. Located on the upper north mezzanine levels are an open computer lab, three computer labs/classrooms, and faculty offices for the Division of English/Communications and Social Sciences. The first floor level contains additional faculty offices and classrooms, as well as the main office for the Division of English/Communications and Social Sciences and the Bill and Pearl Robinson Classroom. The college's Nursing and Health Sciences programs in registered nursing, radiography, and dental assisting are located in the center core of this building; named the Gallimore Center for Healthcare Education. Located within the Gallimore Center for Healthcare Education are the Fort Walton Beach Medical Center Nursing Lab, the Marjorie Cox Gray and Hugh Gray Health Technology Computer Lab, the Meagan Campbell Nursing Lab, the Twin Cities Hospital Surgical Technology Lab, the Juanita Harbaugh Nursing Classroom.
- **Information Technology (Building 430)** houses the college's Information Technology staff and the Learning Technologies offices.
- **Maintenance and the Maurice F. Mettee Engineering Plant (Building 600)** houses the air conditioning and heating equipment, the Physical Plant (maintenance and custodial).
- **Marie Snow Greene Visual Arts (Building 120)** is a unique circular building in the Mattie Kelly Fine & Performing Arts Center complex that houses instructional art programs in pottery, drawing and painting is named for arts patron Marie Snow Greene. The Dotty Blacker Gallery is located in the center rotunda of the building and the facility also contains the George S. and Frederick F. LaRoche Painting Studio.

- **Mary Lou O' Connor Child Development and Education Center (Building 530)** houses a Child Development Education Center for pre-school age children and features the Sarah Brennan Goodwin Child Development Center Playground.
- **Mathematics (Building 300)** houses offices, classrooms, and specialized laboratories for the mathematics department. The building also contains the Shirley A. Howard Classroom.
- **Mattie Kelly Fine & Performing Arts Center (Building 100)** the main building houses the Mainstage Theater, the Frances Smith Herron Dance Studio, Box Office, and offices for the Division of Humanities, Fine & Performing Arts. The smaller Sprint Theater is located adjacent to the main theater. A central circular sculpture courtyard, which features the college's signature "Seven Dancers" sculpture, connects the theater building with two instructional wings. The Music Wing contains the Tyler Recital Hall (Eva "Kay" and Don Tyler), the Dewitt and Else Hardmant Orchestra Rehearsal Hall, the Dewitt and Else Hardmant Recording Studio, and various other performing arts instructional facilities, classrooms and musical studios. The Art Wing contains two art galleries -- the Holzhauer Gallery and McIlroy Gallery, as well as an Art History classroom. An outdoor amphitheater is located behind the main complex as is the circular Marie Snow Greene Visual Arts Building. The Seven Dancers courtyard is ringed with benches, which are named in memory or in honor of individuals including: Marvin and Nina Adams, Belinda Besse, Dr. Joseph Matthews, James H. and Mary R. Dietz, James Leslie Gibson, Terry Tislow, Sidney and Agnes Bangma, and Julie A. Massey.
- **Observatory (Building 750)** located on the northwest corner of the Niceville Campus, the Observatory houses an 18" automated reflective telescope, complete with a CCD camera and software to allow the location and recording of events in the sky, and a classroom for Astronomy classes.
- **Obstacle/Challenge Course** a military Confidence Course, located north of the Public Safety Driving pad off of West McCracken Way (the campus loop road), was designed based on a similar facility at the U.S. Army base in Fort Benning, GA. Access to the course is on a select/restricted basis through the college's Criminal Justice program.
- **Public Safety East and Gymnasium (Building 510)** houses a multi-purpose facility used to house indoor physical education activities and the facilities, offices, classrooms, and specialized laboratories for programs offered by the Florida Criminal Justice Training Center No. 21 and the college's Public Safety Division, including the college's EMS/EMT/Paramedic, Fire Service, and American Heart Association programs. The building also houses the NWFSC Police Department. In addition, the division also utilizes a specialized P.A.T. (Physical Agilities Test) course, located off of West McCracken Way (the campus loop road).
- **Public Safety Firing Range (Building 550)** is located behind the Mary Lou O'Connor Child Development and Education Center on the northeast corner of the Niceville Campus.
- **Public Safety West, Driving and Firefighter Training Ranges (Building 700)** are located north of the softball field and include a specialized driving pad for Public Safety motor vehicle training and motorcycle rider safety courses.
- **Rappel Tower** is located north of the softball field. Access is on a select/restricted basis through the college's Criminal Justice program.
- **Receiving and Grounds (Building 630)** houses Central Services, Receiving, and grounds equipment and functions.
- **Robert E. Greene Jr. Science Building (Building 350)** houses classrooms and laboratory facilities for biological and chemical science programs as well as the college's Mattie M. Kelly Environmental Institute and the Carroll Richard Stegall Classroom.
- **Sports Complex** is located on the west side of the Niceville Campus and contains field houses for men's and women's baseball and softball, two diamonds, bleachers, and a Strength Training Center.
- **Student Services Center (Building 400)** houses Admissions, Registration, Financial Aid, the Business Office (Cashier), Advising, Recruiting on the second floor. The courtyard level first floor houses food services and several multipurpose meeting spaces. The third floor houses the Costa Leadership Institute, which includes a variety of specialized meeting and conference facilities including the Janet Nadel Morell Conference room, the Charles K. and Eileen H. Arpke, and the Carr, Riggs and Ingram Conference rooms, as well as the Goetsch Gallery.

- **Susan Myers Learning Resources Center (Library) (Building 500)** houses a collection of more than 100,000 items. There are 90,000 books, 7,000 audiovisual items, 150 magazine and newspaper subscriptions, 150 electronic databases and websites with online full-text periodicals and over 140,000 e-books and e-videos. A statewide network provides access to the holdings of all 12 state university libraries and 28 college learning resources centers, numerous electronic databases and worldwide information sources through the Internet. The Myers LRC also contains conference room facilities and group study space. The Academic Success Center is on the first floor and the Graphic Design Department and Studio are located on the second floor.
- **Teacher Education and Copy Services (Building 520)** houses offices and classrooms for the college's Teacher Education programs including the Bachelor of Science in Education degree and the Bachelor of Science in Early Childhood Education, Birth through Four. The college's Copy Services department, which serves college faculty and staff, is also located in this building.
- **Veterans Success Center (Building 500 Annex)** The Veterans Success Center provides a one-stop shop to expand educational opportunities, transitional services and career services for Veterans and their families. The Center offers a tranquil, professional and respectful location, including state-of-the-art infrastructure and technology, where Veterans and their family members can study or pursue other scholastic assignments. Additionally, the Veterans Success Center creates a cooperative community for Veterans and provides resources for leadership, support, advisement and campus engagement.
- **Welding/Manufacturing (Building 560)** is located across the street from Teacher Education and Graphic Services on the northeast corner of the Niceville Campus and houses the Welding Technology and Machining programs.

Northwest Florida State College and University of West Florida Fort Walton Beach Campus

The Fort Walton Beach Campus is a joint campus which provides higher education opportunities ranging from Associate to Doctoral degree programs, as well as, non-credit and adult basic education programs. In addition, the campus houses various economic development programs including the Economic Development Council of Okaloosa County, the Technology Coast Manufacturing & Engineering Network and the Quality Institute. The campus is located on a 156-acre wooded site owned by NWF State College on Martin Luther King, Jr. Boulevard, serving about ten percent of the students enrolled in NWFSC by offering almost 200 classes each year. Fifty-one faculty members teach on this campus and twelve faculty members' offices are located on the FWB campus. Two fulltime advisors serve students, many of which come from other locations. The Joint Campus is a full service campus providing admissions, registration, cashiering, financial aid information, advisement, instruction and learning, tutoring and a full service public library. The campus includes the following permanent facilities:

- **Administration (1):** houses administrative offices and the business and registration offices of both institutions, a large community meeting room, and two conference rooms available for rent to outside organizations.
- **Student Affairs (2):** houses the Barnes & Noble College Store, Student Center and student government offices along with advising for the University of West Florida. The Office for the NWFSC Police Department is also located in Building 2.
- **Classroom Building (3):** houses classrooms and the adult basic education offices. This building contains the Evelyn Walters Nelson Classroom, the Crystal Beach Development Classroom, the Heapy Family/Carpet One Classroom, the Howard F. McGee/First City Bank Classroom, G.L. "Jack" Prince, Jr./First City Bank Classroom, and the Katherine C. McGee/First City Bank Classroom.
- **Classroom Building (4):** houses faculty offices, classrooms, a reading improvement laboratory, some tutoring services and the academic counseling/advising office for Northwest Florida State College.
- **Utilities and Maintenance Building (5):** houses the air conditioning and heating equipment, central services, maintenance, and custodial/grounds functions for the campus.
- **Science Building (6):** houses science laboratory facilities for programs in earth science, biology, chemistry, and physics and mechanical engineering laboratory.
- **Computer Labs (7):** houses computer laboratories, the Math Lab, classrooms, and various Economic Development programs. The building also contains the Judge Ben Gordon Classroom.

- **Library, Fitness Center, Auditorium (8):** houses the Campus Café coffee shop, a graduate level library operated by the University of West Florida, a fitness center, and a 230 seat lecture auditorium, which is available for rent to outside organizations.

Chautauqua Center

The Chautauqua Center is located on 90 wooded acres along Highway 90 West in DeFuniak Springs, and offers a full range of college services and programs. The center houses two computer labs, a career center, small conferencing facilities and a child care center, as well as the L.E. "Zack" and Henrietta Laird Classroom and the T.P. and Annie R. Campbell Classroom.

Robert L. F. Sikes Education Center

The Robert L. F. Sikes Education Center in Crestview is located on East James Lee Boulevard (State Highway 90 East) and offers a full range of college services and programs. The center houses two computer labs, classrooms, a student lounge and administrative/student services space, as well as the Margaret S. Gebauer Literacy Classroom.

South Walton Center

The South Walton Center is located on Greenway Trail, just off Highway 331 South in Santa Rosa Beach is a full-service center that offers college credit, adult basic education and other courses and provides placement testing, advising and program planning, registration and financial aid services. The center houses the offices of the college's Choctawhatchee Basin Alliance (CBA) and the Allyn C. Donaldson Entrepreneurial Center that is part of the college's Costa Leadership Institute at NWF State College.

Hurlburt Field Center

The Hurlburt Field Center offers college credit and noncredit programs for military and civil service personnel. Also offered are courses specifically geared toward the Community College of the Air Force (CCAF) studies and other courses designed to meet the needs of individual military units, base contractors, and individuals who are retiring from the military.

Foundation

The Northwest Florida State College Foundation, Inc. is a non-profit organization which seeks tax deductible contributions to help the college promote academic excellence through scholarships, instructional enhancements, and educational equipment acquisition.

The Foundation was established in 1988 to give individuals, organizations and businesses the opportunity to directly invest in the educational mission of the college. As an IRS 501 (c)(3) organization, donations to the Foundation are tax deductible. The Foundation has a Board of Directors comprised of business and community leaders in Okaloosa and Walton counties.

The Foundation is vitally important to the quality and diversity of higher education in our community. The foundation operates under the philosophy of building principal and using the interest to support various NWFS State College endeavors. For information, contact the Foundation Office at (850) 729-5357 or visit www.nwfscfoundation.org.

Alumni Association

The Northwest Florida State College Alumni Association's purpose is to provide our alumni -- OWJC, OWCC, OWC, and NWF State College alike -- a means to remain involved in the college. Membership in the Alumni Association is open to all graduates and to any student who has attended the College. For more information please contact the NWF State College Foundation at (850) 729-5357 or visit www.nwfsc.edu/alumni.

Mattie M. Kelly Cultural and Environmental Institute

The Mattie M. Kelly Cultural and Environmental Institute was established in 1997. The institute is a partnership of NWF State College, the NWF State College Foundation, and the Choctawhatchee Basin Alliance of NWF State College, dedicated to the cultural, environmental, historical and instructional goals set forth for the institute by the late Mattie M. Kelly of Destin. The objectives of the institute are: to conduct biology and marine science studies associated with Choctawhatchee Bay and the Gulf of Mexico; to display the cultural heritage of Northwest Florida; to provide instruction in the Fine & Performing Arts and Environmental Sciences; to provide a location for fine arts groups and performing groups; and to provide a location for conferences and seminars offered through NWF State College. For information call (850) 729-5357 or visit <http://www.mattiekellyinstitute.org/>.

Choctawhatchee Basin Alliance (CBA)

The Choctawhatchee Basin Alliance (CBA) program of NWF State College is an organization committed to sustaining and providing optimum utilization of the Choctawhatchee Basin watershed. CBA provides opportunities for citizens, educators, and technical experts to promote the health of the Choctawhatchee Basin watershed. For more information on CBA visit www.basinalliance.org, follow them on Facebook and Twitter or call (850) 200-4171.

Composition of Student Body

NWF State College is a coeducational institution serving approximately 17,000 students annually. Students age 16 to 24 comprise 55 percent of the student body. Students age 25 to 34 comprise 24 percent and students 35 to 49 comprise 18 percent. Other age students comprise the remainder of the student population.

College Website

The Northwest Florida State College website is located at www.nwfsc.edu. The website provides access to College information such as admission, registration, financial aid, bookstore, student life, academic resources, instructor websites and more.

RaiderNet

RaiderNet is the student on-line information and registration system. RaiderNet provides access to update contact information, register for classes, view grades, obtain unofficial transcripts, order official transcripts, enrollment verification, degree audit, and financial aid status. RaiderNet utilizes a password. To access RaiderNet from the college's homepage, click the quick link on www.nwfsc.edu. For questions concerning access to RaiderNet, call the Help Desk at (850) 729-5396.

Student Email Accounts

Students are assigned an NWF State College student email account during the application for admission process. The student email address serves as the official method of communication to the student from the college. This email service is reserved for college business. For more information and to access student email, go to www.nwfsc.edu. Send questions concerning access to student email to helpdesk@nwfsc.edu or call (850) 729-5396.

NWF State College Alert System

Northwest Florida State College's safety Alert system enables the college to reach students with emergency information and updates through immediate, direct communications to automatic phone calls, text messages and emails issued by the college. Students who wish to receive NWF State College Alert phone and text messages by automatic notification to their personally selected contact list, must sign up for this free service through the RaiderNet system. It is the student's responsibility to maintain the accuracy of the information and to provide their preferred

contact information so that they can be reached in the event of an emergency. In addition, a student may add a parent, guardian or spouse to their emergency contact list.

Solicitation/Promotions

Agencies or organizations that request permission to display, distribute, or present programs that are not within the educational mission of Northwest Florida State College must submit a request in writing at least two weeks prior to the proposed activity. This request shall contain the name of the organization, the proposed time, date, and location, and the topic of the items to be displayed or distributed. The agency or organization must complete an Events Proposal form which will be routed for review and approval to the Vice President of Administration for final approval by the College President or his designee. The college reserves the right to determine the time, place, and manner of the presentation.

Social Security Number Collection and Use

In compliance with Florida Statute 119.071(5), 229.559 and School Code 1008-396. Northwest Florida State College collects the Social Security Number for use for the College's functions, tracking responsibilities and assisting students from K-20 in post-secondary education. The College will never release your Social Security Number to unauthorized parties. To protect your identity, each student will be assigned a secure unique student identification number. Your unique student identification number is used for all educational purposes at NWF State College.

Federal legislation requires the college to collect Social Security Numbers to report to the Internal Revenue Service. A student can refuse. However, refusing to comply with Federal guidelines can result in a fee.

All Social Security Numbers are protected by federal regulations and are not released to unauthorized parties.

Copyright Policy Statement

College policy (Policy No. GP14.00) states that employees and students will comply with the U.S. Copyright Law (Title 17, U.S. Code, Section 101). Employees and students may use, perform, or reproduce copyrighted works when authorized by (1) licenses or written permission from copyright owner; (2) the fair-use guidelines (available from the Learning Resources Center); (3) the principle of fair use; (4) specific documented exemptions in the law. Copyright items include print, video, electronic data, performances, music, and computer software.

Employees and students who willfully disregard this policy or the specific provisions set forth in the college copyright manual (available in the Learning Resources Center) are subject to state and federal penalties, including civil and criminal liability, as well as college disciplinary action. The college will refuse to grant requests if fulfillment of the request might lead to a violation of the copyright law. Further information is available from the office of the director of learning resources, (850) 729-5392.

Admissions

Northwest Florida State College is an open-door institution. However, depending on the student's intended program of study, there may be specific admission criteria that must be met. All applicants must complete the NWF State College Admissions Application. An applicant is limited to one application per semester. If an applicant needs to make any changes to the application prior to an Admissions decision being made, he or she must complete an electronic *Update My Current Admissions Application* request to make any changes to the current application. A link to this request form can be found on the Admissions page of the College's website. Upon admission, the student is bound to the rules and requirements set forth in the College Catalog in effect for the semester of admission. If the applicant fails to enroll during the semester of their initial admission, his or her application will be purged from the system and the student will be required to complete a new Admissions Application for a future semester.

Get Started

1. It's free to apply to Northwest Florida State College. Apply online at www.nwfsc.edu/admissions.
2. Request official transcripts, as applicable, which include the following: a final high school transcript, GED transcript, or notarized Affidavit of Home School Completion and proof of home education program registration with a County School Board; official college and/or university transcripts from all institutions previously attended, including military transcripts (CCAF, JST, or DD214) Please request official transcripts to be sent directly to: **NWF State College, Office of Academic Records and Enrollment, 100 College Blvd. East, Niceville, FL 32578**. All required documents must be received prior to the start of the semester of admission or the student's schedule will be dropped and a registration hold placed on his or her account until all documents have been received.
3. Score reports from national testing agencies such as CLEP, DANTES, AICE, AP, or IB are required to receive course credit; however, a lack of submission will prevent neither an Admissions decision nor Registration.
4. All First-Time Freshman are required to meet with a Student Success Navigator for academic advising prior to registering for courses. Students may call (850) 729-5111 or email studentsuccess@nwfsc.edu to schedule an appointment.
5. Each applicant will be notified by email of their admission status to the College. Once admitted, students are assigned an NWF State College student email account and student identification number. The student is expected to provide his or her student identification number in order to verify his or her identity when discussing any information related to the student's education record here at the College. **The NWF State College student email account serves as the official method of communication to the student from the College. The student will be expected to use this email account when communicating electronically with the College.**

Re-Admission

An application is good for one semester. A student who is admitted but does not enroll within that semester must re-apply. In addition, a student who has previously attended NWF State College, but who has not been in attendance within one (1) year (3 semesters) must reapply to update personal data, verify their intended program of study, and declare their current residency status. If the student attended another post-secondary institution during the break in enrollment, an official transcript must be submitted from that institution. The student will complete requirements for graduation under the catalog in effect for the term of re-admission.

Transfer Students

A student who has attended another college or university prior to enrolling at NWF State College as degree-seeking is considered a transfer student, regardless of the grades received or the transferability of the courses attempted. Transfer students who are degree-seeking at NWF State College must submit official transcript(s) from every post-

secondary college or university he or she has previously attended to **NWF State College, Office of Academic Records and Enrollment, 100 College Blvd. East, Niceville, FL 32578**. If all transcripts are not received prior to the start of the semester of admission, the student's schedule will be dropped and a registration hold placed on his or her account until all transcripts have been received.

An Exception to Admissions Policy

Applicants may request an exception to Admissions policy by submitting the electronic *Request for Exception: Admissions Policy* form. Requests for exception to published policy must be accompanied by all required supporting documentation and will be reviewed by the Executive Director of Academic Records and Enrollment on a case-by-case basis. Requests must be submitted at least ten (10) business days before the start of the desired semester (or part-of-term) of entry. Decisions issued in this process are final. Multiple appeals for the same term will not be accepted. A link to this request form can be found on the Admissions page of the College's website. Please see the official appeal form for further details and instructions.

Associate in Arts, Associate in Applied Science, and Associate in Science Degree Admission Requirements

An applicant for admission to the Associate in Arts (AA), Associate in Applied Science (AAS), or Associate in Science (AS) degree programs must be a high school graduate and submit one of the following as a part of the application:

A. High School Diploma

Florida public high school graduates must have earned a standard high school diploma as defined in Section 1003.4282 and Section 1002.3105 of Florida Statute, and in Rule 6A-1.09963 of Florida Administrative Code. An official high school transcript listing the high school graduation date is required. Non-Florida public high school graduates must have earned the equivalent of a standard Florida public high school diploma. All other diplomas must be validated. Domestic institutions that are not registered with a department of education from a U.S. state or U.S. territory, or that only offer an exam for a diploma, do not meet the high school diploma requirement.

B. State Equivalency Diploma (GED)

Students who have received the General Education Diploma (GED) are required to submit an official GED transcript listing the overall passing score.

C. Home-Educated Students

Home-Educated students must complete the Affidavit of Home School Completion and provide proof that he or she registered with a County School Board as participating in a home education program.

D. Internationally-Educated Students

Students who graduated from a secondary school outside of the U.S. must use one of the agencies sanctioned by the National Association of Credential Evaluation Services, Inc. (NACES) to translate and validate their secondary school credential. A list of NACES agency members can be found at www.naces.org. Students will need to have the official evaluation sent to **NWF State College, Office of Academic Records and Enrollment, 100 College Blvd. East, Niceville, FL 32578**. The evaluation agency must verify that the student received the equivalent of a U.S. high school diploma in order to meet the high school diploma requirement for Admissions.

Graduating High School Seniors that are applying for the summer semester directly following his or her spring graduation date may be conditionally admitted without receipt of a final high school transcript, as long as the student meets all other admission requirements. The student will be able to register and enroll for one semester but must submit a final high school transcript verifying the high school graduation date prior to the start of the subsequent semester. If this documentation is not received by the deadline, the student will have a registration hold placed on his or her record until the time that the final high school transcript is received and the student's application status changes from conditional acceptance to full admittance.

Certificate Admission Requirements

An applicant for admission to either the College Credit Certificate (CCC) or Career and Technical Certificate (CTC) programs may be admitted without the high school diploma or its equivalent, provided the specific program to which the student is applying does not require it. Refer to the *Selective Admissions Programs* and *Programs with Additional Admissions Requirements* sections to identify certificate programs that require additional Admissions criteria. However, the College will not be able to award Federal Financial Aid unless the student meets the same requirements set forth under the AA, AAS, and AS Admission Requirements above.

Baccalaureate Degree Admission Requirements

NWF State College is approved by the State of Florida Board of Education to offer baccalaureate degrees. All bachelor degree programs are designed to provide a career ladder for those who have already completed an associate degree (or 60 transferable credits for the Bachelor's of Science in Education degrees and BAS degrees). All bachelor degree applicants must complete the NWF State College Admissions Application. Students who do not have an associate degree (or 60 transferable credits for the Bachelor's of Science in Education degrees and BAS degrees) are not eligible to apply and should speak with a Student Success Navigator to determine the appropriate program in which the student may be eligible. Students may call (850) 678-5111 or email studentsuccess@nwfsc.edu to schedule an appointment.

Bachelor of Applied Science in Project Management Bachelor of Applied Science in Management and Supervision

An applicant for admission to the Bachelor of Applied Science in Project Management or Management and Supervision degree program may be admitted with the following:

- Completion of NWF State College Admission Requirements as outlined for the AA, AAS, and AS degree programs
- Completion of 60 transferable credits. Students who have completed an AA degree may be asked to complete additional credits in a professional area (e.g., accounting, computer science, general business, etc.) in lieu of the additional general education credits required of the AS and AAS students.
- Completion of all developmental coursework.

Bachelor of Science in Nursing

An applicant for admission to the Bachelor of Science in Nursing (BSN) degree program may be admitted with the following:

- Completion of NWF State College Admission Requirements as outlined for the AA, AAS, and AS degree programs
- Completion of an associate degree nursing program or nursing diploma prior to enrollment.
- Completion of all developmental coursework.
- Documentation of a current RN License. Recent graduates of nursing programs who have not yet obtained an RN License may apply and may be accepted on a conditional basis for one semester or until clinical experiences begin. The conditional status may be removed once the student obtains a current RN License.
- Documentation of a grade point average (GPA) of 2.75 or higher in all college credit coursework and a grade of "C" or higher in all Florida Common Course Prerequisites applicable to the RN to BSN degree program. Depending on program capacity, students with less than a 2.75 GPA may be admitted on a provisional basis. However, in all cases, the student must have earned a "C" or higher in all Florida Common Course Prerequisites. Provisional status may be removed if the student earns a GPA of 3.0 or higher for his or her first eight upper division nursing credits at the College. Ideally, pre-requisite and General Education courses should be completed prior to enrolling in upper division nursing courses; however, all pre-requisite and General Education courses must be completed by the beginning of the senior year.

Additional pre-enrollment conditions, which include proof of immunizations, CPR verification, drug screen, and background check, must be satisfied prior to registration.

Contact the BSN Department at (850) 729-6440 for additional information.

Bachelor of Science in Elementary Education

An applicant for admission to the Bachelor of Science in Elementary Education degree program may be admitted with the following:

- Completion of NWF State College Admission Requirements as outlined for the AA, AAS, and AS degree programs
- Completion of an AA or AS degree from a regionally accredited college or university, or at least 60 semester hours of post-secondary education from a regionally accredited college or university.
- Completion of all developmental coursework.
- Completion of all General Education Requirements and the lower-division state-mandated common pre-requisite with a minimum grade of "C" in the pre-requisite course.
- Completion of 6 semester hours of coursework with an international or diversity focus.
- A minimum cumulative grade point average (GPA) of 2.5 on a 4.0 scale for the General Education component of the undergraduate studies or have completed the requirements for a baccalaureate degree with a minimum Cumulative GPA of 2.5 on a 4.0 scale from an approved college or university.
- Passing scores on the General Knowledge Test of the Florida Teacher Certification Examination (FTCE).
- Agreement to submit to background checks by both the Florida Department of Law Enforcement (FDLE) and the Federal Bureau of Investigation (FBI).

Bachelor of Science in Early Childhood Education, Birth through Four

An applicant for the Bachelor of Science in Early Childhood Education may be admitted with the following:

- Completion of NWF State College Admission Requirements as outlined for the AA, AAS, and AS degree programs
- Completion of an AA or AS degree from a regionally accredited college or university, or at least 60 semester hours of post-secondary education from a regionally accredited college or university.
- Completion of all developmental coursework and a minimum of 18 credit hours of transferable General Education courses.
- Completion of state-mandated prerequisites with a minimum grade of "C".
- Completion of 6 semester hours of coursework with an international or diversity focus.
- A minimum cumulative grade point average (GPA) of 2.0 on a 4.0 scale.
- Agreement to submit to fingerprinting as required by Early Childhood facilities.

Second Degree

In recognition that students seeking a second baccalaureate degree have completed a rigorous program of study at a regionally accredited or comparable international institution, some admission and graduation requirements will be satisfied by virtue of their previous degree. These include the Gordon Rule courses, Foreign Language Entrance Requirement, and General Education. However, this will not preclude prerequisites for the major that happen to be general education courses. NWF State College will also honor the same practice for students who have been awarded a State of Florida AA or a baccalaureate degree from a regionally accredited or comparable international institution and are seeking an Associate in Applied Science or Associate in Science degree at NWF State College.

Selective Program Admissions

Selective programs are those programs that have a competitive selection process and require additional Admission Requirements.

Dental Assisting

The program in dental assisting is accredited by the Commission on Dental Accreditation [*and has been granted the accreditation status of "approval with reporting requirements with intent to withdraw August 2020"*]. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: <http://www.ada.org/en/coda>.

The program is a three (3) semester Selective Admissions Career and Technical Certificate program. Applicants must possess a high school diploma or its equivalent and satisfy all other NWF State College admission criteria. Program graduates are eligible to sit for the Dental Assisting National Board examination to receive the Certified Dental Assistant (CDA) credential. Contact Dental Assisting at (850) 729-6444 for additional information.

Emergency Medical Technician (EMT)

The Emergency Medical Technician program is accredited by the Committee on Accreditation for the EMS Professions (CoAEMSP). Emergency Medical Technicians are part of the Emergency Medical Services team. EMTs are trained to provide basic life support and transportation of the sick and injured. The EMT program prepares students to apply for the examination to become a Florida licensed and National Registry Emergency Medical Technician-Basic.

The Emergency Medical Technician program is 12 credit hours and is conducted over one (1) semester. Applicants to this program must have a high school diploma or its equivalent and meet other applicable Admission criteria (including fingerprinting, a background check and a drug screen). Contact the Public Safety Office at publicsafety@nwfsc.edu or (850) 729-5378 for additional information.

Firefighting

Firefighters are trained to extinguish and control fires in response to situations where property, life, or the environment is in danger. At the scene of an emergency, firefighters perform tasks assigned by their commanding officer. Depending on the situation, they may need to provide medical attention, break through debris, operate fire hoses, or enter a burning building. Firefighters are often first responders to car accidents, heart attack scenes, and other medical emergencies that do not involve fire.

The Firefighting Certificate program is one (1) semester that consists of two classes: Fire Basic I and II. Applicants to this program must have a high school diploma or its equivalent and meet other applicable Admission criteria. Contact the Public Safety Office at publicsafety@nwfsc.edu or (850) 729-5378 for additional information.

AS/RN Nursing

This two (2) year Nursing program, which is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA, <http://acenursing.org>, (404) 975-5000, leads to an Associate in Science (AS) in Nursing degree. Graduates of the Nursing program are eligible to apply for licensure by examination to become Registered Nurses (RNs). They are also prepared to continue their education and can smoothly transition into the RN to BSN program offered at NWF State College.

The Associate in Science in Nursing has a twice-a-year admissions process to begin nursing coursework in the Fall or Spring semester. Those who plan to apply to the program may wish to complete specified General Education coursework to prepare a more competitive application. Applicants must complete a program application in addition to

the College application, must meet or exceed the minimum cumulative GPA requirement, and must pass the Nursing Admission Examination to be considered for selection into the program. Students selected for this program must meet matriculation criteria, including fingerprinting, a criminal background check, drug screen, proof of immunization and CPR Certification, as required by clinical facilities. Interested students should review all application materials and selection criteria on the Nursing website. Contact a Student Success Navigator at (850) 678-5111 or studentsuccess@nwfsc.edu for advising or additional information.

Paramedic

Paramedics are the highest trained and educated pre-hospital provider of emergency medicine. In the Paramedic program, students are provided the highest quality education to prepare to become competent leaders in the high pace work of Emergency Medical Services. The Paramedic program is three (3) semesters beyond the Emergency Medical Technician - Basic level and prepares students to apply for the Florida or National Registry Paramedic board examination. The Paramedic Certificate program is a Selective Admissions College Credit Certificate. Students admitted to this program must have a high school diploma or its equivalent and meet other applicable Admission criteria (including documentation of current Florida Emergency Medical Technician (EMT) Certification, fingerprinting, a background check and a drug screen). The curriculum for this program forms the core of the Associate in Science in Emergency Medical Services degree program. Contact the Public Safety Office at publicsafety@nwfsc.edu or (850) 729-5378 for additional information.

Radiography

The Radiography Program is a Selective Admissions Associate in Science degree program. New students are accepted annually for enrollment in the Summer semester. Students admitted to this program must meet specific admission criteria. Additionally, after acceptance into the Radiography program, a background check, drug screen, and other training will be required. Graduates of the program will be eligible to sit for the American Registry of Radiologic Technologists (ARRT) certification exam. Contact the Division of Allied Health at (850) 729-6444 or visit the Radiography website for additional application requirements and information.

Welding

The Welding Technology and Advanced Welding Technology are Selective Admissions Career and Technical Certificate programs. New students are accepted for Admissions annually in both the Spring and Fall semesters. Students admitted to this program must meet specific admission criteria. The NWF State College Welding program provides you the skills, knowledge, and customized training required to be a professional welder. Students accepted into the program have the opportunity of obtaining NCCER credentials. Each certificate level is acknowledged by the industry as proof of acquired skills in various forms of welding, cutting, base metal preparation, welding inspection, safety, and metallurgy. Interested students should review all application materials and selection criteria in the Welding program guide. Please contact the Welding Office at (850) 729-5224 or visit the Welding website for additional information.

Programs with Additional Admission Requirements

Criminal Justice Training Programs

The Law Enforcement Officer Basic and Correctional Officer Basic Career and Technical Certificate Programs are certified through the Florida Department of Law Enforcement (FDLE). The College is designated as Florida Criminal Justice Training Center Number 21 and students enrolling in these certificate programs must meet FDLE requirements (including fingerprinting and background check), possess a standard high school diploma or its equivalent, successfully complete the Florida Basic Abilities Test (FBAT), as well as satisfy all other NWF State

College Admission standards. Contact the Criminal Justice Program at criminaljustice@nwfsc.edu or (850) 729-5378 for additional information.

Emergency Medical Services

The Associate in Science in Emergency Medical Services (EMS) is limited to students who are licensed EMT/Paramedics. A copy of the student's current EMT or Paramedic license will be required before an Admissions decision can be made. Contact the EMS Program Office at (850) 729-5378 for additional information.

Fine and Performing Arts

While a student may be admitted into a Fine & Performing Arts program without any additional Admissions requirements, please note that specific courses may require an audition and/or interview. Contact the Humanities, Fine and Performing Arts Division at (850) 729-5382 for additional information.

Non-Degree Seeking Students

Many students attend college to upgrade employment skills, meet specific pre-requisite requirements, or for personal interest and enjoyment. Non-degree applicants only need to complete the NWF State College Admissions Application. Applicants who do not wish to earn a degree or certificate from NWF State College but wish to take credit courses do not need to provide evidence of prior educational coursework. However, students seeking enrollment in courses with pre-requisites or other Admissions requirements, or students seeking financial assistance may be required to provide evidence of all prior educational course work. A student will not be permitted to enroll in any college credit English, Humanities, Mathematics or Gordon Rule Social Science course without meeting the State of Florida mandated minimum scores on an approved placement test, providing documentation verifying they have met the pre-requisite, or proving that he or she is exempt from placement testing.

Transient Students from Other Institutions

Students who are currently enrolled at another post-secondary institution as a degree-seeking student, but wish to take courses at NWF State College that will transfer back to their home institution are considered Transient Students. Transient Students are required to submit their home institution's authorization of course selection prior to initial registration.

Adult General Education

This program leads to the completion of elementary and secondary studies, including basic reading, writing, and mathematics. Adult General Education classes are designed for adults who need to develop skills in reading, writing, and arithmetic with a minimum of 4th-grade level on the Test of Adult Basic Education (TABE) assessment. It includes other subjects related to gainful employment and college readiness such as obtaining the Florida High School Diploma through GED testing, career preparation, and postsecondary transition services. English classes are available for students that have a primary language other than English. Eligibility requirements are as follows:

- Applicants must be 16 years old.
- Applicants must NOT have received a standard high school diploma or passed the General Education Development (GED) Test.
- Registration dates and start times are the same as those for college credit students. The Adult Education Program is open enrollment and students may enroll anytime during the semester. The term fee is \$30.00. Most student classroom materials are included in this fee.

International Students

International students should begin the Admissions process at least four months prior to the beginning of any college semester. International mail delays, transcript verifications, international monetary transfers, consular appointments, travel, housing, and advisement and/or testing requirements must be anticipated many months in advance of enrollment. The desired date for application materials to be received by the College is April 1st for Fall, September 1st for Spring, and January 1st for the Summer semester. International students seeking college credit on the F-1 or M-1 Visa must satisfy all requirements for Admission as a regular student and meet the following requirements:

1. Fill out the Admission Form located within the International Student Application Packet located on the Admissions website.
2. Transcripts: Official transcripts of secondary and post-secondary school records from outside of the U.S. must be translated and evaluated by a third-party agency at the student's expense. The evaluation agency must be sanctioned by the National Association of Credential Evaluation Services, Inc. (NACES). A list of NACES agency members can be found at www.naces.org. A course-by-course evaluation is required for all post-secondary record evaluations. Students will need to have the official evaluation sent to **NWF State College, Office of Academic Records and Enrollment, 100 College Blvd. East, Niceville, FL 32578**. Though not required, requests for the acceptance of career and technical level transfer work must also be evaluated by a NACES sanctioned evaluation service at the student's expense. Recommendations from the evaluation service will be considered in determining what courses may transfer, however, the final determination will be made by the Executive Director of Academic Records and Enrollment in consultation with the appropriate academic department representatives, if applicable. Original transcript evaluation documents will not be returned nor will they be forwarded to another college or agency.
3. Financial Support: An official statement from the applicant's (or sponsor's) bank or other financial institution or government agency verifying the availability of sufficient funds for tuition, matriculation, books, living expenses, etc., must be submitted (Approximately: \$25,000 for the academic year). With the exception of athletic scholarships, financial assistance for international students is not available from NWF State College. An international student must be able to finance all school expenses and transportation. Before obtaining a visa, the U.S. government will require a copy of the financial certification given to NWF Florida State College. Employment is not permitted unless permission to work is given by the Immigration and Naturalization Service (INS). College fees are subject to change without notice.
4. Language Proficiency: Test of English as a Foreign Language (TOEFL) results are required of applicants for whom English is not the primary language. The minimum required score is 173 for the computer-based TOEFL cBT and 61 on the Internet-based TOEFL iBT. Students, who have evidence of English proficiency in lieu of a passing TOEFL score, may submit a Request for Exception: Admissions Policy Form. **NWF State College does NOT administer the TOEFL test.**
5. Health Information: Health insurance with hospitalization coverage and a repatriation clause is required. This insurance should be obtained prior to the international student's first registration and must be maintained while attending NWF State College.

An official notice of acceptance or denial will be sent to applicants. Applicants should not make definite plans to arrive in the U.S. until he or she has been notified of acceptance to the College. Being in the U.S. will not affect the Admission decision. Completing the application process does not guarantee acceptance to NWF State College. When all admissions documents, academic credentials, and test results are on file and meet minimum standards for the College, an acceptance letter will be sent along with the U.S. Immigration Form I-20. The Form I-20 is the document required to obtain the Student (F-1 or M-1) Visa. Final approval for a visa is determined by the American Embassy or Consulate representative and not the College. If the student cannot enroll for the semester written in the notice of acceptance and wishes to enroll in a different semester, the NWF State College International Student Success Navigator must be informed immediately.

NWF State College does NOT provide on-campus housing; therefore, international students must find available housing in the community. There is limited public transportation service in the area; students must provide their own transportation to and from the College. The U.S. Citizenship and Immigration Service (USCIS) regulations require that foreign students enroll in a full-time course of study during two (2) of the yearly terms. USCIS regulations also

restrict work opportunities for such students. International students should consult with the International Student Success Navigator and present his or her student visa and evidence of health insurance prior to registration.

Collegiate High School

NWF State College operates an innovative charter high school on the Niceville Campus. This school is a public school of the Okaloosa County School District governed by the NWF State College Board of Trustees. Through this unique high school/college program, students may earn both a high school diploma and a two-year college degree at the same time through full-time study at NWF State College. The Collegiate High School is free of charge and operates under guidelines established by Florida statute. Admission is open to any public, private or home school student who is of high school age and who has earned credit for placement in grades 10, 11, or 12.

Collegiate High School students enroll in honors high school classes and college courses and may earn both high school and college credit for these classes. Students follow an approved program of study designed by the student, his/her parents, and an educational advisor. The program of study meets the Florida statutory requirements for both a high school diploma and an associate degree. A limited pre-collegiate track assists students who are not completely prepared to directly enter a full program of college-level classes. For more information, call the Collegiate School Office at (850) 729-4949 or visit www.nwfcollegiatehigh.org.

Simultaneous Enrollment for High School Students

Simultaneous enrollment programs provide a means for educational acceleration for academically superior high school students. These include the following Admission categories:

Dual Enrollment provides the opportunity for qualified high school students from Okaloosa and Walton counties to enroll in NWF State College courses while simultaneously enrolled in high school. Students receive both high school and college credit for these courses. Dual Enrollment students are exempt from tuition, matriculation, and laboratory fees. Public school students have books provided by the student's high school through the College's Barnes and Noble Bookstore. Books must be returned by the end of the semester. Private and home school students must purchase their own college textbooks. Eligibility criteria and enrollment procedures comply with Florida law and regulations and are defined in the appropriate District Articulation Agreement.

Concurrent Enrollment provides the opportunity for qualified high school students from Okaloosa and Walton counties to enroll in NWF State College courses while simultaneously enrolled in high school. Unlike Dual Enrollment, college credits earned through concurrent enrollment do not apply to the student's high school requirements. Students concurrently enrolled pay standard college tuition, matriculation, laboratory and textbook fees.

Please note the terms and eligibility criteria of these high school enrollment programs are defined by state regulation, college policies and procedures, and current articulation agreements. It may vary between Okaloosa and Walton counties, private, and home school students. As such, they are subject to change.

Students must meet the Admission requirements in order to enroll in either the Dual or Concurrent Enrollment programs. Student success in these programs is dependent upon both academic readiness and social maturity. Prospective students and their parents should consult the Office of Academic Records and Enrollment at (850) 729-5205 or visit the Dual Enrollment website for the most current Admission information and procedures.

Florida Residency for Tuition Purposes

Northwest Florida State College offers one of the lowest tuition rates in the state of Florida. In order to take advantage of this and receive in-state tuition, students must *prove* Florida Residency. The Florida Residency for

Tuition Purposes policy is based upon state statutes, rules of the two higher education governing boards in Florida, and statewide guidelines developed by college and university administrators in conjunction with the Statewide Residency Committee and the Florida Department of Education.

Students are classified as Florida residents, Border State residents or as Non-Florida residents for the purpose of fee assessment at the time of initial registration. Criteria for determining residency status are detailed in Florida Statutes and the administrative rules of the State Board of Education. A Florida resident for tuition purposes is a person who has (or a dependent person whose parent or legal guardian has) established and maintained legal residence in Florida for the 12 months immediately preceding the first day of classes of the term for which enrollment is requested. Residence in Florida must be for the purpose of establishing a permanent home and not merely incident to enrollment at an institution of higher education.

To qualify as a Florida resident for tuition purposes you must be a U.S. citizen, lawful permanent resident, or certain individuals granted indefinite stay by the U.S. Citizenship and Immigration Service. Living in Florida for the express purposes of attending school does NOT constitute legal residence. Students who depend on out-of-state parents for support are presumed to be legal residents of the same state as their parents unless one parent has established legal residence in Florida for more than 12 months. Two (2) documents supporting the establishment of legal residence must be dated or issued 12 months before the first day of classes of the term for which Florida residency is sought. Supporting documents for residency classification must be submitted to the Office of Academic Records and Enrollment prior to the first day of the semester in order to be considered as in-state for tuition purposes. If a student's schedule includes only courses that are part of a non-traditional part-of-term that begins after the start of the regular semester, that student must submit supporting documents for residency classification prior to the first day of the earliest non-traditional part-of-term for which they are enrolled. Students cannot hold out-of-state driver's licenses, vehicle registrations, etc. and be eligible for Florida residency.

The Office of Academic Records and Enrollment verifies through the student's submitted documentation whether or not the student is eligible to be designated as a Florida resident for tuition assessment purposes. Once verified, documentation related solely to residency will not be maintained within the student's permanent education record. Note that while the Office of Academic Records and Enrollment makes every attempt to validate residency documentation, the ultimate responsibility to ensure that residency requirements have been satisfied belongs to the student. If the student fails to prove his or her Florida residency status (or Border State residency status), the student will be charged tuition at the out-of-state (non-resident) rate.

Providing false residency information is a violation of Florida law and could result in disciplinary action being initiated. The College will correct the fees assessed those students who misrepresent their place of legal residence. An invoice will be issued for the increase in tuition.

Dependent

Students who are claimed on their parent's tax return as a dependent for the previous calendar year shall be considered to be dependent. In addition, a student, whether or not living with his or her parent, who is eligible to be claimed by his or her parent as a dependent under the federal income tax code shall be classified as dependent. In general, the IRS requires that a "qualifying child" or "dependent" meet six (6) tests:

1. The child must be your son, daughter, or stepchild.
2. The child must be: (a) under age 19 at end of the year; (b) under age 24 at end of the year AND a full-time student; or (c) any age if permanently disabled.
3. The child must have lived with you for more than half of the year subject to IRS exceptions.
4. The child must have NOT provided more than half of his or her own support for the year.
5. The child is NOT filing a joint return for the year (unless that joint return is filed only as a claim for refund).
6. If the child meets the rules to be a qualifying child of more than one person, you must be the person entitled to claim the child as a qualifying child.

Independent

A student who meets any one of the following criteria shall be classified as an independent student for the determination of residency for tuition purposes. Evidence that the student meets one of these criteria will be requested by the College.

1. The student is 24 years of age or older by the first day of classes of the term for which residency status is sought at a Florida institution.
2. The student is married.
3. The student has children who receive more than half of their support from the student.
4. The student has other dependents that live with and receive more than half of their support from the student.
5. The student is a Veteran of the U.S. Armed Forces or is currently serving on active duty in the U.S. Armed Forces for purposes other than training.
6. Both of the student's parents are deceased or the student is, or was (until age 18), a dependent or ward of the court or in foster care.
7. The student is determined an unaccompanied homeless by a school district homeless liaison, emergency shelter or transitional housing program.
8. Documentation is provided showing the student provides more than 50% of his/her support for the year.

Qualification by Exception

Other persons not meeting the 12-month legal residence requirement may be classified as Florida residents for tuition purposes if they fall within one of the limited special categories authorized by the Florida Legislature [Florida Statute S.1009.21(11)]. These exceptions are listed below.

Documentation in support of these exceptions is required:

1. Active duty service members of the U.S. and active drilling members of the Florida National Guard stationed in Florida (spouse and dependent children included).
2. Active duty service members of the U.S. not stationed in Florida but whose legal state of residence is Florida (spouse and dependent children included).
3. Full-time instructional and administrative personnel employed by the State public schools system, college system, or university system (spouse and dependent children included).
4. A dependent child who has lived with an adult relative (who is not a parent or legal guardian) for at least three years.
5. Persons who were enrolled as Florida residents at a state institution of higher learning but who abandon Florida residency for less than one year.
6. Latin American/Caribbean Scholars.
7. U.S. citizens living on the Isthmus of Panama who has completed 12 consecutive months of college-level coursework at the FSU Panama Canal Branch (spouse and dependent children included).
8. Full-time employees of state agencies or political subdivisions of the State when the student fees are paid by the agency or subdivision for the purpose of job-related law enforcement or corrections training.
9. Qualified beneficiaries under the Florida Pre-Paid Postsecondary Expense Program as provided in Florida statute.
10. A dependent child whose parents are divorced, separated, or otherwise living apart, will be considered a resident for tuition purposes if either parent is a legal resident of Florida, regardless of which parent claims the minor for tax purposes.

The law allows non-U.S. citizens such as lawful permanent residents, temporary permanent residents, asylees, parolees, and refugees who have applied for and been approved for such status and who otherwise meet the 12-month legal residence requirements, to be eligible to establish Florida residency for tuition purposes. For a list of non-immigrant categories (visa categories and INS classifications) eligible to establish Florida residency for tuition purposes contact the Office of Academic Records and Enrollment at (850) 729-6458 or registrar@nwfsc.edu.

Reclassification

Students classified as out-of-state residents for tuition purposes may re-apply for in-state residency at such time as they have completed the requirements for establishing legal Florida residency. Students can reclassify by submitting an updated Residency Classification form and supporting documentation to the Office of Academic Records and Enrollment. A minimum of three (3) documents that support clear and convincing evidence of Florida legal resident for the previous twelve (12) consecutive months will be required. Supporting documents for reclassification must be submitted to the Office of Academic Records and Enrollment prior to the first day of the semester in order to be considered. If a student's schedule includes only courses that are part of a non-traditional part-of-term that begins after the start of the regular semester, that student must submit supporting documents for residency reclassification prior to the first day of the earliest non-traditional part-of-term for which they are enrolled.

Students who become eligible for in-state tuition in the middle of a semester shall have their record adjusted to reflect the in-state tuition rate effective the next semester of enrollment. **Tuition will not be adjusted for the current semester.**

Residency Appeals

In cases where the student expresses a desire to appeal the residency classification, he or she must submit a Residency Appeal form to the Office of Academic Records and Enrollment. The appeal will then be referred to the Residency Appeal Committee in accordance with the College's official appeals process. The Residency Committee will render the final residency determination and the reasons for the determination in writing to the student.

Tuition Waivers

The state offers a variety of exemptions and waivers for the out-of-state portion of tuition, found in F.S. 1009.26. The most commonly awarded waivers by NWF State College are below. A waiver will only be awarded once the student demonstrates he or she does not qualify for Florida residency.

Recent Florida High School Graduates Waiver

House Bill 851 amended section (s.) 1009.26, Florida Statutes (F.S.), fee waivers, to authorize an out-of-state fee waiver for students who have attended a Florida high school for 3 consecutive years immediately prior to graduating from a Florida high school. These students must have applied to NWF State College within 24 months after their high school graduation. In order to be eligible, students will need to submit an official high school transcript showing the Florida high school attendance. This waiver can be applied to recent Florida high school graduates regardless of their immigration status to include DACA and undocumented students. Students who do not qualify for in-state residency but are eligible for this waiver should contact the Office of Academic Records and Enrollment at (850) 729-6458 or registrar@nwfsc.edu.

Out-of-State Tuition Waiver for Veterans and their Dependents

House Bill 7015 created the Congressman C.W. Bill Young Veteran Tuition Waiver Program, authorizing an out-of-state fee waiver for honorably discharged Veterans and their dependents of the U.S. Armed Forces, U.S. Reserve Forces or the National Guard who physically reside in Florida. A new waiver application is required for each academic year. Veterans students and their dependents who are Florida residents are encouraged to seek in-state residency for tuition purposes through the Office of Academic Records and Enrollment.

NWF State College shall waive the out-of-state tuition for Veteran students and their dependents who meet the following conditions:

- The Veteran student and/or dependent's sponsor received an honorable discharge as a member of the U.S. Armed Forces, U.S. Reserve Forces or the National Guard.
- Proof of honorable discharge confirmed on Veteran's DD214 (member copy 4).

- Proof of physical residence in the state may include but is not limited to, submission of an annual lease and/or a Florida Driver's License reflecting the Veteran's name.

In order to be eligible for the waiver, students will need to fill out the Non-Resident Veteran Tuition Waiver which can be found within the student portal RaiderNet. The waiver is also available at any NWF State College campus location.

Out-of-State Tuition Waiver for Active Duty Service Members

House Bill 799 was signed into law July 2016 and amended section (s.) 1009.26, Florida Statutes (F.S.), fee waivers, to authorize an out-of-state fee waiver for a person who is an active duty member of the Armed Forces of the United States residing or stationed outside of the state. Tuition and fees charged to eligible students will be at the in-state rate. In order to be eligible, students will be required to present a copy of their active duty orders to the Office of Academic Records and Enrollment.

Additional Resources

Florida Statutes

- 1009.21 *Determination of Resident Status for Tuition Purposes*. This statute outlines the broad legal parameters for establishing residency for tuition purposes in Florida public higher education institutions.

State Board of Education Rules

- 6A-10.044 *Residency for Tuition Purposes*. The purpose of this rule is to establish consistent policies for the classification of students as residents for tuition purposes in accordance with criteria set forth in Section 1009.21, F.S.
- 6A-20.003 *Florida Residency as a Requirement for the Receipt of State Student Aid*. Students that attend a Florida post-secondary educational institution must show eligibility to receive funds from state student financial assistance programs by following proving Florida residency as outlined in 1009.21, F.S.

Board of Governors Residency Regulation

- State University System of Florida Board of Governors Residency Regulation.

Florida Residency Guidelines

- Articulation Coordinating Committee's Guidelines on Florida Residency for Tuition Purposes. This Residency Guidelines document was adopted by the Articulation Coordinating Committee to assist college and university administrators in implementing Section 1009.21, Florida Statutes; Rules 6A-10.044 and 6A-20.003, Florida Administrative Code; and the Board of Governors (BOG) Residency Regulation. The guidelines, as maintained by the Statewide Residency Committee, are used to determine residency status for tuition purposes in public colleges and universities. The Florida Residency Guidelines for Tuition Purposes were first adopted by the Articulation Coordinating Committee on September 6, 2006.

Alabama Residency

The Florida Legislature allows the option of providing Alabama residents a different tuition assessment for post-secondary classes. At NWF State College, the Alabama Border State Fee, at a rate of an additional \$1.00 per credit hour to the current in-state tuition rate, will be assessed for all eligible Alabama residents.

To be eligible for the Alabama Border State Fee the student must complete the *Declaration of Alabama Residency* form and provide verification of a current Alabama driver's license, Alabama vehicle registration, or Alabama voter's registration card.

Admission of Sexual Offender/Sexual Predator

The presence of students officially designated as Sexual Offenders/Sexual Predators on campus would be disruptive of the orderly process of the College's programs and/or would interfere with the rights and privileges of other students. In accordance with Section 1001.64(8a), Florida Statutes, the College may consider the past actions of any person applying for admission or enrollment and may deny admission or enrollment to an applicant because of past misconduct if it is determined to be in the best interest of the College.

Accordingly, the College will deny admission/enrollment to students who are officially designated as Sexual Offenders/Sexual Predators. An applicant should follow the appeal process outlined below. If an academic term has already begun at the time the College receives a notification of past misconduct that would classify the student as not eligible for admission, the student's admission will be revoked, the student will be administratively dropped from all courses and refunded for fees paid for the term in progress. The student may also receive a credit for required textbooks purchased for classes from which the student is dropped. This decision may be appealed to the Vice President of Student Success.

To submit an appeal the student must send a letter to the Vice President of Student Success that contains the following:

1. The reason the student believes an appeal should be granted.
2. Documentation of the legal proceedings that led to the student being listed with the State of Florida as a Sexual Offender/Predator including police reports, court proceedings, adjudication, time served and parole information. If this information is not received with the letter of appeal, the Vice President of Student Success may attempt to collect it through other means.
3. The names and contact telephone numbers of at least three professional references who can attest to the student's ability to function without harm to a learning community (which includes persons under the age of 18.) This could include probation officers, therapists, employers, and clergy.
4. The name and contact information for the therapist of the sex therapy group that was required as part of the legal sanction or in which the student/applicant participated.

Once the full documentation is received, the Vice President of Student Success will review it, conduct telephone interviews with references provided, share all of the information with the College President and talk with the appellant about the situation presented. If there is sufficient reason at this point to believe an appeal may be granted, the Vice President of Student Success will conduct a face-to-face meeting with the student to determine the risk the student poses to the campus learning environment. The final decision will be made based on the full documentation received and the meeting with the student. The student will receive a letter of the decision from the Vice President of Student Success. The Vice President of Student Success will monitor the student's enrollment each term through their degree completion at Northwest Florida State College. Any behavioral issues will result in immediate and permanent expulsion from Northwest Florida State College.

Applicant Records

Applicant Records (the pre-attendance record) include records relating to an individual's application for admission to NWF State College prior to his or her actual attendance as an enrolled student. Although not considered education records (because an applicant is not yet a student), Section 1006.52, Florida Statutes does define Applicant Records and provides that such records are confidential and exempt from Sections 119.07(1), Florida Statutes and 24(a), Art. I, Fla. Constitution.

Financial Aid/Veteran's Education Benefits

The mission of the Office of Financial Planning, Scholarships, and Veterans Benefits at Northwest Florida State College is to remove financial barriers; to promote the success of a diverse student body; and to increase opportunities for access in higher education. We seek to provide a premier experience for students, faculty, and staff by providing timely communication and by providing courteous and efficient financial services while complying with all federal, state, and college policies.

Financial assistance administered by NWF State College does not discriminate on the basis of color, religion, age, sex, national origin, disability, pregnancy, or marital status. Specific criteria and academic standing information may be required for particular assistance and/or scholarships.

Financial Aid Administered by Northwest Florida State College

Federal Aid: Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Work Study Program (FWS), Iraq and Afghanistan Service Grant (IASG), and Student Loans

State Aid: Bright Futures, Florida Student Assistance Grant (FSAG), Florida Work Experience Program (FWEP), First Generation Match Grant, and Scholarships for Children and Spouses of Deceased or Disabled Veterans

Information regarding

Institutional Scholarships: Awarded by NWF State College, a list can be found on the college website at <https://www.nwfsc.edu/students/financialaid/scholarships/>

Deadlines

A FAFSA (Free Application for Federal Student Aid) must be completed for each academic year and one FAFSA serves throughout that entire academic year (Fall through Summer). The FAFSA becomes available each October for the following academic year, and you should apply as early as possible because many financial aid programs have limited funding that will go only to early applicants.

Financial Aid Priority Deadline

To have your financial aid processed in time for your registration fees to be paid by financial aid, you must complete **all steps** in the application process by the Financial Aid Priority Deadline:

- June 1 for Fall Term
- October 1 for Spring Term
- March 1 for Summer Term

Late Applicants

If you miss the Financial Aid Priority Deadline for the term in which you wish to enroll, you still are strongly encouraged to apply for financial aid. Your application will be accepted and processed; however, it may not be processed in time for you to use your financial aid to pay for your fees and books. If this is the case, you will need to pay your tuition and purchase your books; then, if you qualify for financial aid, a refund will be issued to you later in the term. You can seek help with paying your tuition through the NelNet Tuition Payment Plan. Further information

about this plan can be found on RaiderNet under the "Pay Fees" tab or by contacting the Business Office at 850-729-5385.

Applications for federal financial aid should be made well in advance of registration by submitting the Free Application for Federal Student Aid (FAFSA).

Application Instructions

You must apply for financial aid each academic year.

1. Be a degree-seeking student at NWF State College or be a certificate-seeking student in an eligible program and take courses that are required for that degree or certificate. (Some certificates, due to required program length, are not eligible for Federal Financial Aid. Please see a Student Success Navigator if you have questions regarding your program)
2. Provide the Admissions/Records Office with an official final copy of your high school transcript or GED score report, or, if you are a college transfer student, provide an official copy of your transcript from each institution you have attended. Transfer course work must be evaluated before an award can be made.
3. Complete the Free Application for Federal Student Aid (FAFSA). NWF State College's school code number is "001510."
 - World Wide Web address fafsa.ed.gov (Allow at least two weeks for processing.)
 - Regular mail (Allow at least six weeks for processing.)

Research. Check the Scholarship link on our website at <https://www.nwfsc.edu/students/financialaid/scholarships/>

Federal Programs

For a student to be eligible for federal financial aid at NWF State College, a student must:

- Be accepted for enrollment in an approved program of study, have a high school diploma or GED
- Be a U.S. citizen, or an eligible non-citizen
- Not owe a refund or repayment on a federal grant at any institution
- Not be in default on a federally-funded or insured student loan
- Enrollment must be in courses required for your degree or certificate
- Be registered for Selective Service if required
- Not have been convicted for sale or possession of illegal drugs while receiving Title IV funds
- If a college transfer student, have an official transcript from each previously attended institution submitted to, and evaluated by, NWF State College.
- Must maintain satisfactory academic progress standards

State of Florida Programs

For a student to be eligible for State of Florida financial aid (i.e. FSAG, FSAG-CE) at the college, a student must:

- Have demonstrated a financial need (complete the FAFSA application)
- Have met the advertised deadline
- Have been a resident of Florida for one year or be classified as a Florida resident by the Registrar's Office
- Be degree-seeking in an approved program of study
- Have a 2.0 or higher grade point average (GPA) on all previous college work
- A student must have earned credit hours equivalent to his/her enrollment status during each term of the prior academic year in which state aid was received, (12 credit hours or 360 vocational hours for each term of full-

time enrollment, 9 credit hours or 270 vocational hours for each term of three-quarter-time enrollment and 6 credit hours or 180 vocational hours for each term of half-time enrollment), and

- A student who is not enrolled full-time will be offered a part-time award. Part-time awards will be prorated according to enrollment status. Funds will be offered until the limited funds are exhausted.

Verification

The federal government requires that some applications be reviewed for accuracy through a process called "verification." If you are selected for this process, you will be required to provide additional documentation to our office for review. You will be notified through your student e-mail account, or by checking your RaiderNet account, which documents you will need to provide to complete your financial aid file. All documentation must be submitted to the Financial Aid Office within 30 days of notification. If you do not submit the requested information you may lose funds otherwise available to you.

Federal Eligibility Matches

The federal processor matches your name and social security number with a variety of federal agencies. Agency matches are performed against the files of the Social Security Administration, Department of Homeland Security, Selective Service and the National Student Loan Data System. If any discrepancies or questions about your information occur, you will be asked to provide additional documents or take additional action to confirm your eligibility for federal assistance.

Transfer Students

If you previously applied for federal financial aid at another institution and now want to apply for financial aid at NWF State College, you must update your current year FAFSA to include our federal school code (001510).

If you are a college transfer student seeking a degree or technical certificate, you must submit a complete official transcript from each college and university you have attended. Your financial aid eligibility cannot be determined until NWF has received and evaluated all of the transcripts for transfer credit.

Transient Students

If you are enrolled as a transient student, you are not eligible for financial aid through NWF State College.

The amount of federal financial aid a student is eligible to receive is dependent on the student's enrollment status each term based on the following table. Credit hours are computed using all developmental and college credits in which the student is enrolled.

Full-Time Enrollment	Three-Quarter Time Enrollment	Half-Time Enrollment	Less Than Half-Time Enrollment
12 or more credit hours	9-11 credit hours	6-8 credit hours	1-5 credit hours
450 clock hours	Clock hours/program length*	Clock hours/program length*	Clock hours/program length*

*To determine enrollment status other than full-time, as established by federal regulation, the number of clock hours the student is enrolled in is divided by the program length.

- Enrollment status is based upon number of credit hours enrolled in at the advertised census date (see academic calendar).
- The amount of the award will not increase if students add a class after the advertised census date.
- To retain enrollment status, student must attend all of their classes. Attendance for distance learning courses is defined as attending an orientation; participating in the course, as defined by the instructor; submitting course assignments, as required, to the instructor; or initiating contact with the instructor.
- Failure to attend any enrolled course will lower the award status and amount.

Repeated Courses

Federal regulations limit the number of times a student may repeat a course and receive financial aid for that course.

- A student may receive aid when repeating a course that was previously failed (received a failing or unsatisfactory grade); regardless of the number of times the course was attempted and failed.
- A student may receive aid to repeat a previously passed course (grade of 'D' or higher) one additional time.
- Once a student has completed any course twice with a passing grade (grade of 'D' or higher), he/she is no longer eligible to receive aid for that course.
- This rule applies whether or not the student received aid for earlier enrollments in the course.
- Students will receive notification if they are aid applicants and attempt to repeat coursework beyond the limits.

Developmental Courses

NWF State College approves developmental courses for the use of financial aid and includes developmental courses where necessary when determining a student's enrollment status. Admission placement testing requirements will determine if developmental courses are needed in a student's degree program. Financial aid will pay for no more than 30 credit hours of developmental coursework.

Clock Hour Programs

Clock hour programs (Dental, Welding, Law Enforcement, and Fire Science/EMT) are not paid in semester hours like other programs offered at NWF State College. Financial aid pays for the entire program, but not by semesters, and eligible amounts may be subject to proration based upon the length of the program.

Satisfactory Academic Progress Requirements

To be eligible for financial aid, all students, including students transferring to NWF State College from another institution, must meet NWF State College's standards of satisfactory academic progress for financial aid. Student academic progress is reviewed at the end of each term. A transferring student's satisfactory progress will initially be determined from the student's academic history at all previously attended institutions. Students who attended NWF State College in the past will be reviewed based on all previously attempted courses, regardless of how long ago they attended NWF State College, in accordance with federal guidelines.

Failure to meet one or more of the established standards of satisfactory progress will make a student ineligible for financial aid. Students who become ineligible for financial aid due to the failure to meet the SAP for financial aid will remain ineligible for financial aid until they meet the standards or are placed on an Academic Plan as a condition of their approved appeal. Satisfactory progress includes all previous academic history, even if the student did not receive financial aid.

Below are the standards of satisfactory progress for financial aid. These standards apply to all students:

SAP for Financial Aid Eligibility Federal regulations (34 CFR 668.34) require a student to move toward the completion of a degree or certificate within an eligible program when receiving financial aid. Specific requirements for academic progress for financial aid recipients may be applied differently than college Academic Standards, Warning, Probation, and Suspension. Federal regulations state that SAP must include a review of all periods of enrollment, regardless of whether or not aid was received. The student must meet all the minimum standards in order to receive financial aid.

There are three parts to the SAP rules:

1. You must maintain a 2.0 cumulative Grade Point Average (GPA). This includes all course work you have taken at NWF State College or any college or university (this includes college level classes taken during high school), regardless of whether or not you received financial aid for those classes.

2. You must successfully complete at least 67% of all of the classes in which you have enrolled. This includes all the course work you have taken at NWF State College or any college or university (this includes dual enrollment classes), regardless of whether or not you received financial aid for those classes.

3. You must not attempt more than 150% of credits needed for the level of degree in which you are seeking. All coursework attempted is included in these totals.

Financial Aid Warning Status

The first semester a student fails to meet the satisfactory progress standards for financial aid, he/she will be placed on Warning Status. While the student will continue to receive financial aid during this period, it is the student's responsibility to restore his/her academic standing for financial aid by the end of the warning status term.

Students who exceed the 150% Rule are not eligible for a Financial Aid Warning Status.

Failure to restore academic standing by the end of the Warning Status term will result in the student being ineligible for financial aid. Students can appeal their failure to meet standards of Academic Progress.

Appealing Satisfactory Academic Progress Requirements

Before submitting an appeal for financial aid, students must meet with a Student Success Navigator and obtain an approved program of study. The program of study may be the basis for the student's academic plan. Students should file a financial aid appeal as soon as they receive notification of their failure to meet the standards of academic progress, or no later than 30 days after the semester ends. Appeal forms and procedures are available on the Financial Aid web page at <https://www.nwfsc.edu/students/financialaid/forms/>

Transfer students must meet the established satisfactory progress requirements or submit a financial aid appeal. Students can appeal their failure to meet the standards of academic progress for financial aid if unusual circumstances exist. Unusual and mitigating circumstances include, but are not limited to, a death in the student's family, medical condition, hospitalization, documented emotional distress, or other situations beyond the student's control.

All situations must be fully documented.

A Program Objective Enrollment Compliance (POEC) review is required for every student seeking federal student aid. In accordance with federal law, federal student aid funds can only be applied to classes that are recognized as being truly necessary for completion of a student's declared degree. To that end, we must verify (on a term-by-term basis) whether all classes for which a student is enrolled are required or not. Those classes that are confirmed to be required, i.e. POEC compliant, will be counted in enrollment status for federal student aid (as long as all other relevant eligibility criteria has been met). Classes that are identified as not required for degree completion will be flagged as such, and these non-compliant courses will be excluded from enrollment status.

To be clear, *any coursework that is not required will not be included when calculating enrollment status* for Title IV funds (Pell Grant, Direct Subsidized Loans, Direct Unsubsidized Loans, etc.). Students who qualify for aid that exceeds the actual cost of their compliant coursework may be able to apply that difference to non-compliant classes. If excess aid does not exist, the student who wishes to keep such classes on their schedule will need to pay for those classes out of pocket.

If you receive Title IV federal financial aid (Pell, Federal Loans, SEOG) and completely withdraw from all of your classes within the first 60% of the term, stop attending all classes without notification or have a break in attendance during the semester, a pro-rated portion of your financial aid may need to be repaid. In this case, you will be billed for aid that must be repaid, and holds will be placed on your record until the bill is settled.

This policy is derived from provisions of federal law. Students receiving Title IV aid should consult with the Financial Aid Office prior to withdrawing from any or all classes.

As a student financial aid consumer,

You have the right to:

- Be informed about financial aid application procedures, cost of attendance, aid available and renewal requirements.
- Have confidential protection of your financial aid records. The contents of your financial aid file are maintained in accordance with the Family Educational Rights and Privacy Act (FERPA).
- Request a review of decisions made by the NWF State College financial aid staff. A letter explaining your situation in detail should be submitted to the Executive Director of Financial Planning and Scholarships.

You have the responsibility to:

- Complete applications correctly and on time.
- Read and understand all materials sent to you from Financial Aid and other financial aid agencies by e-mail and/or letter; keep copies of all forms and materials submitted.
- Know and comply with the rules governing your aid program(s).
- Comply with the provisions of any promissory note and all other agreements you sign.
- Register for the appropriate number of credits and maintain satisfactory academic progress.
- Request personal assistance if you have questions or do not understand the information provided to you.
- Register for courses that count toward your degree or certificate.

All new Veteran students are encouraged to visit the Veteran Success Center at the Niceville campus for assistance with starting a record. NWF State College is approved for training by the State Approving Agency under the various Veterans' training laws. Veterans planning to enroll and use their VA Educational Benefits should consult with the Veterans Success Center staff well in advance of their first semester. All new Veteran students should refer to the Application Procedures at the college website at <https://www.nwfsc.edu/students/veterans/> to establish their VA record with the Veterans Success Center.

VA students are also required to be familiar with the NWF State College Student Veteran's Handbook, which explains our processes and the rules imposed, by U.S. Code Title 38 and Title 10. Our Student Veteran's Handbook can also be downloaded from the Veteran's Page.

Training time for all programs, except Chapter 33 Post 9/11 GI Bill®, is computed at full time, three quarter time and half time; please refer to your specific chapter payment chart at the GI Bill® website.

Chapter 33 does not have a half time rate; it is computed by dividing the student's credit hours by the full time rate, rounding to the nearest tenth and multiplying by the E-5 with dependent Basic Allowance for Housing rate.

Example: 9 credit hours divided by 12 = .75, which the VA rounds up to 80%. If the BAH rate for zip code 32578 was \$1,356 a BAH payment at 80% would be \$1,084.80 a month.

Chapter 33 students will also receive a book stipend payment that is calculated at \$41.67 per credit hour with a maximum amount of \$1,000 per academic year. Chapter 33 students who schedule all distance learning classes, (Online, Hybrid, Independent Study, & Video Conferencing), will only receive half the national average in BAH. Current information on rates can be found at <https://www.va.gov/gi-bill-comparison-tool/>

Full-Time Enrollment	Three-Quarter Time Enrollment	Half-Time Enrollment

12 or more credit hours	9-11 credit hours	6-8 credit hours
Chapter 33:	Chapter 33:	Chapter 33:
12 or more = 100%	11 = 90% 9 or 10 = 80%	8 = 70% 7 = 60%

NWF State College also has clock hour programs that the VA calculates on a weekly basis. To maintain full time status a student must have 22 clock hours per week for Applied Welding Technologies, 18 clock hours per week for Auxiliary Law Enforcement, Corrections Officer, Law Enforcement Basic, Fire Fighter, and Dental Assisting. Chapter 33 students in a clock hour program who are full time will receive \$83 a month for book stipend.

Training time for the Summer Term and any accelerated session of any term is computed differently. Veterans are advised to contact the VAO before registering for Summer Term and accelerated term classes to determine training status.

All Veterans who wish to receive VA benefits must provide a signed Enrollment Certification Request Drop/Add form each semester, available on our website. VA students must submit a new Enrollment Certification Request Drop/Add form for all schedule changes, to include (drop, withdrawal, never attending, reinstatement or termination of attendance).

Note: VA student attendance is reported to the VA and will affect benefit payments. The VA pays a Chapter 33 student's tuition directly to the college. Chapter 35, 30, 1606, and 1607 students are responsible for paying their tuition by the due date; these students, including Chapter 33 students who do not have a Certificate of Eligibility, can use a VA deferment once a school year.

Any eligible VA student who wishes to pursue an approved program of study shall be granted upon request, a deferment for full payment of fees for a period determined by the Business Office, once per school year (August through July). Under no circumstances shall any person be allowed to enroll or re-enroll at NWF State College who has an unpaid fee deferment. A student who defaults on a VA deferment will lose the right to receive future deferments.

In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. This school will not:

- Prevent the student's enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA Certificate of Eligibility (COE) by the first day of class;
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies

Testing Services

Testing Services

As a member of the Florida Association of College Testing Administrators (FACTA), Northwest Florida State College offers comprehensive testing services for students and the community. Our exams are both nationally and academically based, such as the SAT, ACT, CLEP, TABE, Accuplacer and DSST.

NWF also provides proctored exams for students and non-students, which include make-up exams, remote testing, online exams, and testing with accommodations. Students with disabilities can inquire about testing accommodations through our Accommodation Resource Center (arc@nwfsc.edu).

As an authorized Pearson VUE Testing Center, NWF delivers secure professional certification testing for students and the community at select testing locations. For information on individual certification tests offered at our testing centers, visit www.pearsonvue.com.

Northwest Florida currently offers six testing locations. For location information, hours and a list of testing services available at each location, visit www.nwfsc.edu/testing. For exam scheduling and pricing, visit <http://www.registerblast.com/nwfsc/exam>.

Academic Advising & Student Success Navigation

- Student Success Navigation
- Faculty Advisors

Student Success Navigation

Northwest Florida State College (NWF) utilizes a holistic and comprehensive advising model to better support students in achieving their academic goals. Advising services are provided in a centralized, one-stop format with options for in-person, phone, and virtual (web-based) sessions. Service areas covered in this model include admissions, registration, records, financial aid, and academic advising, which includes degree and career pathway planning. All services are provided by Student Success Navigators under the authority of the Student Success Navigation department.

All first-time-in-college students, and transfer students with 29 or fewer transferrable credits, are required to meet with a Student Success Navigator for new student advising prior to registering for classes during their first term at NWF. Students are strongly encouraged to continue regular meetings with Student Success Navigation throughout the duration of their studies. Student Success Navigators are available for advising services via phone, live chat (web), and in-person at all campus locations.

Faculty Advisors

Students admitted to selective admission programs may be required to meet with faculty advisors as directed by the associated academic department. More information on departmental policies and advising may be found on the NWF website at www.nwfsc.edu.

Registration

- Academic Load
- Audit Status
- Classification of Students
- Full-time and Part-time Status
- Registration
- Schedule Changes
- Withdrawing from Courses

Registration

Registration is the process of selecting and enrolling in NWF State College courses. Registration is required before a student can attend classes. For information regarding important registration dates, visit the online Academic Calendar.

While most students may register online through RaiderNet, some programs may restrict online registration. For additional information regarding the registration process, please contact a Student Success Navigator at (850) 648-5111 or studentsuccess@nwfsc.edu.

Enrollment Status

Student Type	Full Time	Three-Quarter Time	Half Time	Less than Half Time
College Credit, Career and Technical, Developmental	12 or more credit hours	9 credit hours	6 credit hours	less than 6 credit hours

Classification of Students

Students are classified according to the number of semester hours they have earned.

LOWER LEVEL

Freshman	A student who has 29 or fewer hours
Sophomore	A student who has 30 hours to 60 hours

UPPER LEVEL

Junior	A student who has 61 to 90 hours
Senior	A student who has 91 or more

Academic Load

A student may enroll in a maximum of eighteen (18) credit hours each semester. Students seeking to enroll in more than eighteen (18) developmental, career and technical, and/or college credits in a single semester must receive prior approval from a Student Success Navigator. Appointments with a Student Success Navigator can be made by contacting (850) 648-5111 or studentsuccess@nwfsc.edu.

Audit Status

Auditing a course permits a student to enroll in a college-credit course on a "not-for-credit" basis. Students auditing a class are not required to complete examinations but are expected to attend classes and participate in other activities and requirements on the same basis as students seeking credit. For students who enroll with an Audit Status prior to the end of the Schedule Adjustment (Drop/Add) Period, upon completion of the course, an "X" grade will be awarded but will not impact the student's GPA nor count as an attempt toward Full Cost of Instruction and Repeat rules. After the close of the Schedule Adjustment (Drop/Add) Period, students may only change from credit status to audit status (or from audit status to credit status) with the written approval of both the instructor of the course and the Vice President of Teaching & Learning. If the student receives approval to change from credit status to audit status after the Drop/Add period, an "XC" grade will be awarded that does not impact the student's GPA but does count as an attempt toward Full Cost of Instruction and Repeat rules. Some occupational courses may not be available on an audit basis. Students wishing to audit an occupational course must obtain permission in advance from the appropriate department chair/division director. Audit enrollment in studio art classes is permitted on a space-available basis only. Students may audit a class no more than four (4) times.

Schedule Changes during the Schedule Adjustment Period

Changes in course registration may be made during the Schedule Adjustment (Drop/Add) Period specified in the online Academic Calendar. Students can make changes to his or her schedule during the Schedule Adjustment (Drop/Add) Period through the student portal - RaiderNet. However, depending on within which specific part-of-term the change is being made, the system may prevent a student from dropping his or her last class online. If this occurs, a student should contact a Student Success Navigator at (850) 648-5111 or studentsuccess@nwfsc.edu to ensure the student is manually dropped from the course prior to the deadline. It is the student's responsibility to ensure that his or her schedule is correct prior to the Schedule Adjustment (Drop/Add) deadline. If a student drops any course during the Schedule Adjustment Period, no record of that course enrollment will appear on the student's transcript nor will the enrollment count as an attempt toward Full Cost of Instruction or Repeat rules.

Withdrawing From Courses

Students are expected to complete all courses for which they are enrolled at the end of the Schedule Adjustment (Drop/Add) Period. Course withdrawal may negatively impact a student both academically and financially. Prior to withdrawing, a student should speak with his or her instructor and a Student Success Navigator to determine if a course withdrawal is in the best interest of the student. Students are permitted a maximum of two withdrawals per course in college credit, career and technical, or developmental courses. Pursuant to Rule 6A-14.0301 of Florida Administrative Code, upon the third (and any approved subsequent attempt), the student is not permitted to withdraw from that course. If the student does withdraw from a third (and any approved subsequent attempt), the "W" grade received in that course, will convert to a final grade of "F" at the end of the semester.

A student-initiated withdrawal may be processed at any point after the Schedule Adjustment Period up until the Withdraw Deadline published in the online Academic Calendar. Prior to the deadline, withdrawals can be completed by the student in RaiderNet or by submitting a written request to the Office of Academic Records and Enrollment. If the student has not exceeded the approved number of withdrawals, the student will receive a grade of "W" on his or official College transcript.

Enrollment	Action	Time Frame	Grade on Transcript	Refund
Schedule Adjustment (Drop/Add) Period	Add or Drop a Class	Schedule Adjustment (Drop/Add) Period as it is posted on the Academic Calendar	No Record Recorded	Full Refund
Withdraw	Drop one or more classes	After the Schedule Adjustment (Drop/Add) Period ends and prior to the Withdrawal Deadline posted on the Academic Calendar	W Grade	No Refund
Complete Withdrawal from the College	Drop all classes	May be requested after the Schedule Adjustment (Drop/Add) Period ends and prior to the Withdrawal Deadline posted on the Academic Calendar using the Complete Withdrawal from Semester Form.	W Grade	No Refund
Withdraw after the published deadline	Drop one or more classes after the Withdrawal Deadline	May be requested after the Withdrawal deadline has passed using the Request for Exception: Records Appeal Form but does require proof of mitigating circumstances and approval by the Executive Director of Academic Records & Enrollment	W Grade	No Refund
Administrative Withdrawal	Drop one or more classes by College Administration	May be approved by College Administration at any time for mitigating circumstances	W Grade	No Refund

Complete Withdrawal from the Semester

A currently enrolled student may completely withdraw from all of their classes up to the withdrawal deadline published in the online Academic Calendar and, thus, will no longer be considered a current student. The transcript will reflect a grade of a "W" for all currently enrolled classes. The student must first consult with a Student Success Navigator before initiating this process. Financial Aid recipients and student-athletes must check with their appropriate representative(s) to determine any financial or eligibility ramifications for withdrawing. After consultation with a Student Success Navigator and any appropriate representatives as listed previously, a student will need to submit the electronic *Complete Withdrawal From Term* request located within RaiderNet.

Administrative Withdrawal

Students may be administratively withdrawn from the College for reasons such as violation of college policies, procedures, student code of conduct, or for other mitigating circumstances. The Vice-President of Teaching & Learning or the Vice-President of Student Success can administratively withdraw a student at any time.

Distance Learning

- NWF Online
- Final Examinations
- Online Course Orientation
- Online Instruction
- Online Support Services

NWF Online

Technology and the Internet are integral parts of the education process at NWF State College. In keeping with current educational practice, students will be expected to use computer technology and internet communication throughout their college experience. All classes offered at NWF State College may require use of the Internet; such use may vary depending on the class delivery mode (traditional, hybrid, or online).

NWF Online's website (<http://online.nwfsc.edu>) supports student learning through various methods and serves as the portal to online classrooms. The site provides access to online classes for Distance Learning students and for students in traditional and hybrid classes using the College's online learning environment, Blackboard Learn.

Technical support for students using Blackboard is available on the NWF Online website.

Online Classes

Online instruction reaches students needing flexibility and convenience. Online courses are conducted 100% online.

Hybrid Classes

Hybrid classes are traditional college classes combined with online activities to reduce class seat time. Hybrid classes provide the advantages of limited face-to-face instruction combined with the convenience of online learning. Thus, hybrid classes meet less often than a traditional class but provide the same course credit as a traditional class.

Online Instruction

NWF State College offers students the convenience and flexibility of earning course credits through various delivery modes so that students may take control of their own education by working and learning at times and places convenient to them. Online and hybrid classes carry the same course numbers and credits as their traditional counterparts and appear on the student's transcript just as any other course does; there is no designator on the transcript identifying a course as online or hybrid. Credits earned are transferable and are applicable to graduation requirements in the same manner as traditional classes. All NWF State College courses, including all online and hybrid courses, are taught by faculty holding credentials in the relevant subject matter. Students can search for online and hybrid classes by clicking the Class Search Quick link at https://ps-ssb.nwfsc.edu/PROD/bwckschd.p_disp_dyn_sched.

Online Course Orientations

To ensure the success of each student, every online instructor will provide an online orientation to Blackboard and the course. Course orientations contain crucial information, such as course pace, how to submit assignments, grading requirements, testing arrangements, and strategies for improving student success.

Final Examinations

Final examinations for both traditional and Distance Learning classes are held at the end of each term and must be taken at the scheduled time unless other arrangements are approved in advance by the appropriate division director or department head. Final exam schedules are printed in the Schedule of Classes and are on the NWF State College website calendar for each term.

Online Support Services

NWF State College is committed to offering students the same quality of education through online and hybrid courses as it offers in the classroom. In addition to online tutoring provided through Smarthinking and online library help through Ask-a-Librarian, distance learning students have full access to college services at all physical locations. They may use on-campus resources, such as the Academic Success Center, Academic Advising and computer labs. The process for seeking assistance for NWF Online classes is to email online@nwfsc.edu.

Online and hybrid courses are subject to the same rules as traditional, in-class courses for refunds, prerequisites, placement, withdrawals, repeat rules, grading, and other academic policies. Depending on student eligibility, financial assistance is generally available for these courses in the same manner as it is for traditional courses.

Student Records

Student Records

The Office of Academic Records and Enrollment serves as the custodian of education records for students who have attended NWF State College or under any of its previous names. Information is released only upon the written and signed approval of the student in accordance with Federal laws. Please see the College's section regarding FERPA for additional information regarding Federal law pertaining to student education records.

Student Transcripts

A transcript is a student's official academic record. Students requesting an official transcript may do so online through RaiderNet. There is a fee for sending official transcripts. Transcripts will be sent within five (5) to ten (10) College business days of the request. A separate transcript is created for each level of coursework (ex. one for Undergraduate and one for Vocational) and will display the course(s), grade(s), and cumulative GPA associated with that level. If a student has taken courses at more than one level, the student will need to order all transcripts by choosing the "select all" option within the transcript request portal.

NOTE: Each state's Department of Education maintains its own GED transcripts. Students that received their GED in the state of Florida can obtain their GED transcript by contacting the Florida Department of Education via the FDOE website or by calling (888) 906-4031.

Transcripts will not be released if the student has an outstanding financial obligation to the College, an incomplete admissions file or a Records hold on his or her account.

Student Contact Information

It is the student's responsibility to notify the College of a change of address or phone number. Students can update contact information through RaiderNet or by submitting the "Update My Personal Information" form to any NWF State College location.

Family Educational Rights and Privacy Act of 1974, as Amended (FERPA), The Buckley Amendment

NWF State College upholds the Federal law, The Family Educational Rights and Privacy Act (FERPA), giving students the right to inspect, review, and amend their educational records. The College will not release or disclose information, nor allow inspection of records, without prior written permission from the student except under certain circumstances where, by law, prior consent is not required. Students have the right to file a complaint with the U.S. Department of Education if they feel their records have been inappropriately released. A student's FERPA rights begin when the student is "enrolled" as defined by NWF State College as the point when a student registers for class.

Eligible Parent:

A parent or guardian providing documentation that supports the student is a current legal dependent for tax purposes may only review a student's records if approval is granted by the Executive Director of Academic Records and Enrollment.

Details:

The College will provide students in attendance with annual notification of the rights available under FERPA.

Right to Review and Inspect:

Students have the right to review and inspect their permanent student records. A student desiring to review records may do so by submitting a request in writing to the Executive Director of Academic Records and Enrollment who will schedule such inspections within 45 College business days of the request. A student desiring copies of educational records may receive them after payment of a fee of \$1.00 per sheet. This is exclusive of the normal transcript service.

Waiver of Right to Inspect:

The Office of Academic Records and Enrollment does not provide confidential letters or statements of recommendation concerning admission to another educational institution or to accompany applications for employment. College staff and/or faculty who know the student personally may provide confidential letters or statements of recommendation only if the student has waived the right to inspect such letters or statements.

Right to Amend Educational Records:

The student, or eligible parents of the student, may direct challenges related to the accuracy of the student's educational record to the Executive Director of Academic Records and Enrollment. The Executive Director of Academic Records and Enrollment will schedule a hearing within 10 College business days of initial notification of the challenge to allow the student to present evidence relevant to the matter at the hearing. The student, or eligible parents of the student, will be notified in writing of the results. A student can insert a statement in his or her record after a hearing regardless of the hearing outcome (whether the college maintains, upholds or rules against the challenge).

Disclosure Policy:

There are two types of information distinguished under FERPA: personally identifiable information and directory information. Certain conditions exist with regard to the disclosure of each kind of information. NWF State College complies as follows:

- **Personally Identifiable Information:**
Personally Identifiable Information is information that includes identifying data such as social security number, academic work completed, grades, achievement test scores, aptitude test scores, health data, or other personal characteristics or information which would make the student's identity easily traceable. Prior consent, in the form of a signed and dated document, must be provided by the student to authorize the College to disclose personally identifiable information. The consent must specify the educational records that may be disclosed, should state the purpose of the disclosure, and must identify the party or class of parties to whom the disclosure may be made. For convenience, a student may submit a *Student Information Release Authorization Form (also known as a FERPA Release)* to the Office of Academic Records and Enrollment to provide his or her written consent to release approved personally identifiable information to a designated party permanently or until the time the student provides a written request to revoke this access to the Executive Director of Academic Records and Enrollment.
- **Directory Information:**
NWF State College has designated the following information as directory information and may be disclosed under FERPA without the student's prior consent:
 - NAME
 - LOCAL AND PERMANENT ADDRESS
 - NWF STATE COLLEGE STUDENT EMAIL ADDRESS
 - MAJOR
 - DATES OF ATTENDANCE
 - CURRENT ENROLLMENT STATUS (FT/PT)
 - DEGREE(S) EARNED AND DATE(S) AWARDED

- HONORS AND AWARDS
- PRIOR POSTSECONDARY INSTITUTION(S) ATTENDED
- PARTICIPATION IN OFFICIALLY RECOGNIZED ACTIVITIES AND SPORTS
- HEIGHT AND WEIGHT OF STUDENT ATHLETES
- STUDENT'S PHOTOGRAPHIC IMAGE INDEPENDENT OF ANY ADDITIONAL PERSONAL IDENTIFIERS

A student has the right to prevent the release of his or her directory information by submitting the *Non-Disclosure of Directory Information* form to the Office of Academic Records and Enrollment at least 10 College business days prior to enrolling in the term that the directory information block should begin. Submitting this form will place a confidentiality indicator on the student's record that will signify that no directory information is to be released. Once a student obtains a confidential classification, it will not be removed until a signed authorization requesting it be removed is received by the Executive Director of Academic Records and Enrollment. Please note that a student's request to prevent the release of directory information will prevent a student's name from being included in College publications including the Commencement program and any honors or award announcements. NWF State College assumes that a student's failure to request a directory information block constitutes the student's approval for disclosure.

Exceptions to the Disclosure Policy:

FERPA allows for the release of student records without the written consent of the student under the following conditions:

- To school officials with a legitimate educational interest. The College has designated school officials as faculty, administration, professional employees, support staff, work-study students, or persons employed by or under contract to the College (example: an attorney or auditor) acting as an official agent of the College to perform a business function or service on behalf of the institution. A school official is determined to have a legitimate educational interest if the information requested is necessary for that official to: perform appropriate tasks that are specified in his or her position description or by a contract agreement; institution research and studies, perform a task related to a student's education; perform a task related to the discipline of a student; provide a service or benefit relating to the student or student's family, such as health care, counseling, job placement, or financial aid. Disclosure to a school official having a legitimate educational interest does not constitute institutional authorization to transmit, share, or disclose any or all information received to a third party. Unauthorized disclosure of personally identifiable information from the education record of the students is prohibited.
- In compliance with a court order or subpoena
- To parents of a dependent student or such parents as defined in Section 152 of the Internal Revenue Code of 1954 (at the discretion of the Executive Director of Academic Records and Enrollment)
- To schools in which a student seeks or intends to enroll
- To the Comptroller General of the United States, Attorney General of the United States, The Secretary of the Department of Education, and federal, state and local educational authorities involving an audit or evaluation of compliance with education programs
- In connection with the financial aid process
- In the event of a health or safety emergency where the information is required to resolve the emergency
- In the event that a student under the age of 21 has committed a drug or alcohol-related offense
- As a result of a disciplinary hearing where the student is the perpetrator of a crime of violence or a non-forcible sex offense. Under this exception, information may be released to anyone, including the media. No information on the victim or witnesses may be released.

Students' Rights

A student has a right to file a complaint to The Family Policy Compliance Office, U. S. Department of Education, 400 Independence Ave., SW, Washington, D.C. 20202-4605, the office responsible for enforcing and administering the

Family Educational Rights and Privacy Act. There are two basic requirements for a complaint to be properly filed against an institution in relation to FERPA infractions:

- The complaint must be made within 180 days of when the infraction was discovered.
- There must be sufficient facts (evidence) to prove the violation.

Enrollment and Degree Verification

The National Student Clearinghouse provides free enrollment and degree verifications for the purposes of employment, obtaining Military ID cards, Health Insurance or background screening. The National Student Clearinghouse in cooperation with NWF State College has permitted current students to request enrollment verifications directly through RaiderNet. If a student no longer has access to RaiderNet, he or she (and all third parties) should request verifications through the National Student Clearinghouse website or by calling (703) 742-4200.

Transient Students from NWF State College

Currently enrolled degree-seeking students may request to concurrently enroll at another college or university under limited extenuating circumstances. Students must have an approval on file with the Office of Academic Records and Enrollment prior to enrolling at the other institution. NWF State College students who will be concurrently enrolling at another Florida state college or university will request approval through FloridaShines by completing a transient application found at the Florida Shines website. NWF State College students who will be concurrently enrolling at an institution outside of the state of Florida must complete the College's *Transient Student Authorization Form*. This form can be obtained online through RaiderNet. The form should be submitted to the Student Success Department within Raider Central for initial review by a Student Success Navigator. Final approval of transient study requests is determined by the Executive Director of Academic Records and Enrollment. Upon completion of the course(s), it is the student's responsibility to request an official transcript to be sent directly to the NWF Office of Academic Records and Enrollment to have the credit added to his or her academic record.

Students must meet the following criteria before approval can be granted:

- Be a degree-seeking student in good academic standing
- Meet the NWF State College minimum credit hour residency requirement for the student's degree or certificate program
- Meet pre-requisites and/or testing requirements for the course at NWF State College
- The requested course must be needed for the student's degree and or certificate program at NWF State College

Transfer Credit

Evaluation of transfer credit is completed for all degree-seeking students who have attended another college or university. NWF State College will accept credits from colleges or universities fully accredited by one of the six regional higher education accrediting bodies below:

- Middle States Commission on Higher Education
- Higher Learning Commission
- New England Association of Schools and Colleges, Commission on Institutions of Higher Education
- Northwest Commission on Colleges and Universities
- Southern Association of Colleges and Schools, Commission on Colleges
- Western Association of Schools and Colleges

All attempted credits from a regionally accredited institution will be evaluated for transferability to the student's permanent record (transcript) as follows:

- For students pursuing an associate degree or college certificate, all attempted credits at the freshman and sophomore level, and
- For students pursuing a baccalaureate degree, all attempted credits at the freshman, sophomore, junior and senior level.

Credits recorded as transfer credit on the student's permanent record (transcript) do not guarantee that these credits will meet specific degree requirements for the student's program. The College may limit the number of transfer credits applicable to the student's degree. The determination of how transfer credits may apply to a specific degree program rests with the Executive Director of Academic Records and Enrollment in consultation with the appropriate faculty/instructional staff.

The following factors will be considered in the evaluation of credits for transfer. The factors will be used in determining whether the course is transferable and in determining whether the course is recorded as a direct equivalent to an NWF State College course, not a direct equivalent but fulfilling a specific general education or degree requirement, or as an elective:

- Breadth, depth and rigor of course content as evidenced by course syllabi, prerequisites, placement test scores, exit requirements, student portfolios, textbooks, writing or oral communication requirements, grading standards, catalog descriptions, etc.
- Qualifications of the faculty member(s) providing the instruction
- Age of credits
- Recommendations through other established credit assessment bodies (e.g. ACE)
- Institutional accreditation via other professional assessment/accrediting bodies (e.g. AMA, NLN, a state agency)
- Secondary documentation of course competencies (e.g. professional certification, standardized exam scores, etc.)

Recording Transfer Credits on the Student's Permanent Record (Transcript)

When evaluating credits, NWF State College reserves the right to delay recording the transfer credits on the student's permanent record until the student has completed admissions requirements, successfully completed college-level coursework at NWF State College, satisfied residency requirements and/or provided documentation or verification of student competencies. Final award or posting of credits to the student's permanent record may be contingent upon successful completion of one or more of the following requirements:

- NWF State College residency requirement;
- Higher-level courses in the same or a related subject area;
- Subsequent courses in the subject/course sequence;
- Demonstration of specific lab/clinical skills or other applied competencies;
- Additional independent/directed study in the subject area

Once accepted, transfer credits will be recorded on the student's permanent record as externally awarded and will indicate the original institution awarding the credit. Transfer grades are not used in the cumulative GPA calculation towards credits earned at NWF State College, nor does the College transfer in credits in which a grade of "W", "I", or "F" has been awarded by the previous institution. Where appropriate, an equivalent NWF State College course number will be indicated. When the college does not offer an equivalent course or if the course differs substantively from the suggested NWF State College course, the transfer credits may be listed on the transcript as an "unclassified" course. The unclassified credits will be further described as an open elective, a subject area elective, a general education elective or a general education subject area course, as appropriate.

Authority for Acceptance of Equivalent Courses

Section 1007.24(7), Florida Statutes, states:

"Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating non-public postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students."

Exceptions to General Rule for Equivalency

Since the initial implementation of the Statewide Common Course Numbering System (SCNS), specific disciplines or types of courses have been exempted from the guarantee of transfer for equivalent courses. These include courses that must be evaluated individually or courses in which the student must be evaluated for mastery of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

- Courses not offered by the receiving institution
- For courses at non-regionally accredited institutions, courses offered prior to the established transfer date of the course in question
- Courses in the _900-999 series are not automatically transferable and must be evaluated individually. These include such courses as Special Topics, Internships, Apprenticeships, Practica, Study Abroad, Theses, and Dissertations
- Developmental courses
- Graduate courses
- Internships, apprenticeships, practica, clinical experiences, and study abroad courses with numbers other than those ranging from 900-999
- Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (e.g., portfolio, audition, interview, etc.)

Courses at Non-Regionally Accredited Institutions using Florida Common Course Numbering

The Statewide Common Course Numbering System (SCNS) makes available on its home page (<http://scns.fldoe.org>) a report entitled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all non-public institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to the Vice President of Academic Affairs, Building A, Niceville Campus, or to the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the SCNS office at (850) 245-0427 or at <http://scns.fldoe.org>.

Acceptance of Transfer Credits from Other Non-Regionally Accredited Institutions

Credits awarded at non-regionally accredited institutions may be accepted by NWF State College and placed on the transcript if the credits represent college-level coursework relevant to the program of study, with course credit and level of instruction resulting in student competencies at least equivalent to those of students enrolled in comparable instruction at NWF State College, and the instructor(s) of the course(s) possessed the minimum academic credentials and experiences as required of comparable NWF State College faculty at the time the instruction was received by the student. Students will need to complete an electronic *Request for Exception: Records* form in order for the credits to be evaluated. This electronic form can be accessed through RaiderNet. Acceptance of credits from non-regionally accredited institutions of higher education rests with the Executive Director of Academic Records and Enrollment in consultation with the appropriate faculty/instructional staff.

Transfer Credit Appeal

A student may appeal either the equivalency determination or denial of transfer credits by submitting an electronic *Request for Exception: Records* form. This electronic form can be accessed through RaiderNet. The review process will parallel that applied to the general evaluation of credits for transfer. The final determination will be made by the Office Academic Records and Enrollment in consultation with the appropriate faculty/instructional staff normally responsible for the subject matter in question.

Application of Transfer Credits to Baccalaureate Degree Programs

Lower-division college credits in technical areas not generally applicable at the upper (baccalaureate) will be reviewed according to the following factors prior to their acceptance as satisfying NWF State College upper (baccalaureate) degree requirements:

- Breadth, depth and rigor of course content as evidenced by course syllabi, prerequisites, placement test scores, exit requirements, student portfolios, textbooks, writing or oral communication requirements, grading standards, catalog descriptions, etc.
- Qualifications of the faculty member(s) providing the instruction
- Age of credits
- Recommendations through other established credit assessment bodies (e.g. ACE)
- Institutional accreditation via other professional assessment/accrediting bodies (e.g. AMA, NLN, a state agency)
- Secondary documentation of course competencies (e.g. professional certification, standardized exam scores, etc.)

Where questions of applicability still remain following such a review, the credits may still be used to meet lower division degree requirements subject to one or more of the following conditions:

- Successful completion of related higher-level courses in the student's program of study;
- Successful completion of subsequent courses in the subject/course sequence;
- Successful completion of complementary lower-division coursework in the subject or related area;
- Demonstration of specific lab/clinical skills or other applied competencies;
- Completion of additional supplemental independent/directed study in the subject area which augments the skills/content of the technical course;
- Presentation of a portfolio of work substantiating the breadth, depth, and rigor of the course content to include both theory and applied competencies;
- Analysis of clusters of course credits where a combination of technical courses may represent baccalaureate level competencies when viewed as a package (e.g. eight credits in technical coursework may correspond to a three-credit traditional transfer course in a given subject area);
- Verification of faculty credentials at the transferring institution

International Students

International students must have all international transcripts translated and evaluated by one of the credential evaluation agencies sanctioned by the National Association of Credential Evaluation Services, Inc. (NACES). A list of NACES agency members can be found at www.naces.org. Students will need to have the official evaluation sent to NWF State College, Office of Academic Records and Enrollment, 100 College Blvd. East, Niceville, FL 32578. Each course on the evaluation will be individually assessed for transfer consideration. Normally, these credits will come in as elective credit only unless the student can provide a translated course syllabus that details the course description, course pre-requisite or co-requisite requirements, and the student learning outcomes of the course. Credits will be awarded on a course-by-course basis.

Credit by Alternative Means of Study

NWF State College will award credit for certain types of non-traditional study or credits earned through alternative means of study. No more than 75% of the credits toward NWF State College's baccalaureate, associate and certificate programs may be earned by way of alternate study. Alternative study methods covered under these limits include Advanced Placement (AP), College Level Examination Program (CLEP), International Baccalaureate (IB), Excelsior College, Military Service Credits, Correspondence Credits, the NWF State College's Course Challenge Exam Option, and Credits through Prior Learning Assessment. Credits for accelerated mechanisms defined under Florida rules and regulations will be awarded in accordance with Florida Administrative Code FAC 6A-10 and the State of Florida's Articulation Coordinating Committee Credit-by-Exam equivalents. Current Credit-by-Exam equivalents as determined by the Articulation Coordinating Committee can be found at <http://www.fldoe.org> and searching for "Credit-by-Exam Equivalencies".

Advanced Placement (AP):

NWF State College will award college credit through the AP program. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education.

Cambridge A-Level & AS-Level Examinations (AICE):

NWF State College will award college credit through the AICE program. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education.

College Level Examination Program (CLEP):

NWF State College will award college credits through the successful completion of both general and subject level examinations of the CLEP program. A minimum 50th percentile score is required for credit. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education. For students who are looking to take the exam(s) locally, the NWF State College Testing Center administers CLEP examinations. For information regarding how to register for the test, please refer to the NWF State College Testing Center website.

NWF State College will award college credits through the successful completion of IB coursework, regardless as to whether or not the student was awarded an actual IB diploma. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education.

DSST (DANTES):

NWF State College will award college credits through the DSST (Dantes) program. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education. For students who are looking to take the exam(s) locally, the NWF State College Testing Center administers CLEP examinations. For information regarding how to register for the test, please refer to the NWF State College Testing Center website.

Excelsior College Examinations:

NWF State College will award college credit through the Excelsior College exam program. The student must submit an official score report to the Office of Academic Records and Enrollment for credit consideration. The amount and type of credit awarded will be determined by the Office of Academic Records and Enrollment under the guidelines established by the State Board of Education.

Comprehensive Course Challenge Examination for Credit

Eligible degree-seeking students that have accumulated a minimum of fifteen (15) hours in residence with NWF State College may earn credit through successful completion of the College's Course Challenge Examination process. The comprehensive examination is intended to verify skills and knowledge acquired through prior learning experiences and is available for the NWF State College courses listed below:

Advanced Technology

- ETD 1102 - Introduction to Technical Drawing **3 Credit Hours**

Business/ Computer Technology

- CGS 1100 - Microcomputer Applications **3 Credit Hours**
- CIS 1000 - Introduction to Computer Science **3 Credit Hours**
- CTS 2104 - Introduction to Windows **3 credit hours**
- GEB 1011 - Introduction to Business **3 credit hours**
- HSC 1531 - Medical Terminology **3 Credit Hours**
- MAN 2300 - Personnel Management **3 credit hours**
- MAR 2011 - Introduction to Marketing **3 credit hours**
- MTB 1103 - Business Mathematics **3 credit hours**
- OST 1107 - Word Processing I **3 credit hours**

Mathematics

- MAT 1033A - Intermediate Algebra **4 Credit Hours**

Nursing

- NSP 4275 - Introduction to Critical Care Nursing **3 Credit Hours**

Science

- HUN 2201 - Nutrition **3 Credit Hours**

Public Safety

- FFP 1801 - Introduction to Emergency Management Administration **2 Credit Hours**

Steps for Approval:

- The student should complete the first section of the *Course Challenge Exam Request* and submit this form to the Office of Academic Records and Enrollment. The appropriate Academic Record and Enrollment personnel will determine the student's eligibility. The Course Challenge Exam Request Form can be obtained through RaiderNet. Please see the official request form for detailed information regarding eligibility criteria.
- If the student is determined to be eligible, the Office of Academic Records and Enrollment will sign-off on the request and return the form to the student. The student must then submit the form to the Business Office and pay the \$100 testing fee. The cashier will sign-off on receipt of the fee which will serve as verification to the appropriate department chair/director that the student is now eligible to schedule the requested Course Challenge Exam.
- The student will submit the form to the appropriate department chair/director, who will facilitate scheduling of the exam.
- Upon completion of the exam, the department chair/director will record whether the student passed or failed the exam and forward to the Office of Academic Records and Enrollment.
- If the student passes the exam, he or she will receive full credit for the designated course with a transcript grade of "P". If the student fails the exam, no grade will be recorded.

Articulation of Vocational Courses and Credits

For students who meet certain requirements, the College may award credit for certain types of non-traditional study such as High School Career Academy Courses and Certifications, Certified Professional Secretary Exam, Child Development Associate Certification, Licensed Practical Nurse (LPN) Bridge, Fire Science Training, Certified Law Enforcement or Correctional Officers, Licensed EMT/Paramedic, External CCP to PSV or Internal CCP to PSV agreements, or other such agreements as established by the NWF State College Curriculum Committee.

Credits awarded through these means will be documented on the NWF State College *Articulation Analysis* form submitted by the appropriate instructional/department staff on the student's behalf, and processed by the Office of Academic Records and Enrollment and will reside in the student's permanent academic record. Credits received through these methods may not be transferable or applicable to the A.A. degree.

Students who complete a diploma or certificate from a vocational or technical school at less than the college level may receive credit toward partial completion of a related technical program at the college. Credit is awarded based upon the nature of the training, current skill levels, and relationship to college program standards. The amount of credit awarded will depend upon established articulation agreements, skill assessment, and departmental recommendations. Students receiving credit under this option must complete credits in residence at NWF State College, per established agreements, before the alternate credits will appear on the student's permanent record (transcript). Additional minimum grade or course requirements, as well as the demonstration of competencies, may also be required.

Students who complete a vocational school certificate program, which is contained in an approved articulation agreement with the college, will receive credit toward completion of a related technical program at the college per the details of the agreement. Credits received in this manner may not be transferable to upper division schools nor be applicable to the A.A. degree.

Students who complete a vocational certificate at NWF State College may receive credit toward partial completion of a related technical program at the college according to the credit/ competency equivalents established by the NWF State College Curriculum Committee.

Final decisions regarding the award of credits and the recording of credits on the student's transcript rest with the Executive Director of Academic Records and Enrollment.

Credit for Military Training and Experience

NWF State College recognizes the educational value of military training and experience. Students must submit an official military transcript to the Office of Academic Records and Enrollment for credit consideration. The Army, Marine Corps, Navy, and Coast Guard use the Joint Services Transcript (JST) to document military training and experience. If no JST record is available for the service member, the Office of Academic Records and Enrollment will accept a copy of the service member's DD Form 214.

The American Council on Education (ACE) recognizes the educational value of non-traditional training and learning experiences. As such, ACE continuously evaluates military school courses and occupations and makes recommendations for college-level credit. ACE credit recommendations are present on the Joint Services Transcript (JST) of a military service member. Northwest Florida State College will award credit for ACE recommendations in the associate and baccalaureate categories for the service member's documented military courses and military occupation experience. Recommendations for credit at the vocational level may be awarded upon approval from the Executive Director of Academic and Records in conjunction with the appropriate faculty/instructional staff. While ACE recommendations will be considered for credit during the evaluation of the JST, they are not binding to the College.

All direct course equivalents and general education electives will be posted to the student's academic record. A maximum of 18 non-general education electives will be posted. All credit awarded is posted to the student's record as transfer credit with a grade of "P". In such cases that the service member has no transferable experience documented on his or her JST, the service member will receive 4 hours of elective credit for his or her military experience. Military courses in which ACE has provided optional credit recommendations will be reviewed on a case-by-case basis and a final determination will be made by the Executive Director of Academic Records in conjunction with the appropriate faculty/instructional staff.

Although credit-by-examination scores such as CLEP and DANTES may appear on the JST, the service member is still required to provide an official score report from the respective examination authority in order for credit to be awarded from these alternative examinations.

Please note that the Community College of the Air Force (CCAF) and Air University (AU) are degree-granting institutions accredited by the regional accrediting body Southern Association of Colleges and Schools, Commission on Colleges (SACS COC), and as such, fall under the College's general transfer credit policy, not this policy specific to the evaluation of the JST.

Grades

Grades are awarded in all college, vocational, and developmental courses, as well as in certain non-credit courses. NWF State College maintains permanent records for all students enrolled in a course. The student's official transcript is a cumulative record of the student's grades in each course in which the student was awarded a final grade. The table below shows the current letter grades that may appear on a student's official transcript. Some grades are no longer awarded, but may still appear on a student's record if he or she previously attended NWF State College during a time in which the letter grade was actively used. If a student has a grade on his or her permanent record that does not appear in the table below, please refer to the archived College Catalog in effect when the grade was received or contact the Office of Academic Records & Enrollment for information regarding how that grade was previously used and/or how it is calculated on the student's permanent record.

Grades Table

Academic Grade	General Meaning	Quality Points toward GPA Calculations
A	Excellent	4.0
B	Good	3.0
C	Average	2.0
D	Poor/Passing	1.0
F	Failure	0.0
I	Incomplete	-
IP	In Progress	-
NG	No Grade	-
P	Passing	-
S	Satisfactory	-
W	Student Withdrew (<i>non-punitive and counts as an attempt</i>)	-
WN	Withdrawn for Never Attending (<i>non-punitive and counts as an attempt</i>)	-
X	Audit (<i>does not count as a course attempt</i>)	-
XC	Changed to Audit After Schedule Adjustment Period (<i>counts as an attempt</i>)	-

Grade Point Average (GPA)

In addition to the letter grade earned in each attempted course, the student's permanent record also contains grade point average (GPA) calculations. The student's GPA is used in determining academic standing, graduation readiness, eligibility for the President's and Dean's Lists, and in other academic-related decisions. The semester GPA represents the average of all grades earned during a given semester. The cumulative GPA represents the average of all grades earned during the student's entire attendance history at NWF State College. College preparatory courses are not included in any GPA calculations. Only grades for courses at the 1000 level or above are used to compute GPA for graduation.

To determine the GPA, multiply the number of quality points for each grade received by the number of credit hours for that course. Then divide the total number of quality points by the total number of GPA hours attempted (excluding courses with W, I, and Audit grades). GPAs for Vocational and Undergraduate Level courses are calculated separately.

As of Fall 2015, the College no longer includes course grades transferred from other institutions in the calculation of a student's GPA.

Credit hours used in GPA calculations are those credits in which a grade of A-F has been awarded. The current grades of I, IP, NG, P, S, W, WN, X, and XC do not carry grade quality points. However, in certain other circumstances, such as determination of repeat enrollments, and in the computation of certain specialized GPA's, credits which carry these grades may be included in the GPA computation.

EXAMPLE COURSE	GRADE	GRADE POINTS	(MULTIPLY BY)	CREDIT HOURS	=QUALITY POINTS
Speech	C	2.00	x	3	6.00
American Literature	B	3.00	x	3	9.00
Biology	A	4.00	x	4	16.00
Health Science	D	1.00	x	2	2.00
Accounting	F	0.00	x	3	0.00
TOTALS				15	33.00
GPA CALCULATION					33/15 = 2.20

Dean's and President's Lists

When the quality of a student's work is superior, the College is pleased to honor such work for students enrolled in all programs at the undergraduate (college credit) level.

PRESIDENT'S LIST:

Any student with nine (9) or more earned college credit hours in the term and a term grade point average of 3.80 - 4.00 in college-level courses is placed on the President's List.

DEAN'S LIST:

Any student with nine (9) or more earned college credit hours in the term and a term grade point average of 3.50 - 3.79 in college-level courses is placed on the Dean's List.

Incomplete Grades

At the instructor's discretion, a grade of "I" may be given when a student is unable to complete the required work because of clearly documented extenuating circumstances and if the student has demonstrated successful completion of a significant portion of the course requirement that he or she has a reasonable chance of successfully completing the course. The instructor will provide the respective department chair/divisional director and the student concerned an outline of the work that must be completed, including an estimate of the student's grade as it stands for work already completed during the semester. Work for the removal of the "I" must be completed prior to the LAST CLASS DAY in the next 16-week term immediately following the current term, except where course requirements mandate otherwise. Students completing course work to remove the "I" must do so outside the regular classroom setting. Once the student has completed the remaining course requirements, the instructor will submit a grade change indicating the final letter grade to the Office of Academic Records and Enrollment. If the student does not complete the course requirements by the deadline, the "I" grade will automatically revert to an "F" on the official transcript. A student will not be permitted to re-enroll in a course in which he or she has an outstanding grade of "I" or for a class that has that course as a pre-requisite.

Repeating Courses

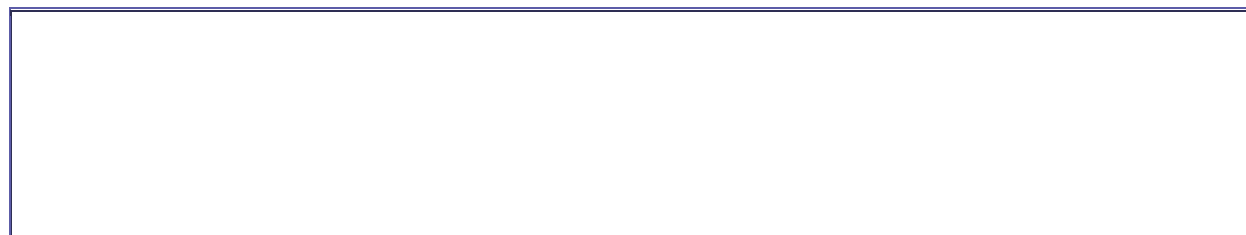
Repeating a Course to Improve the Grade

State Rule 6A-14.0301 addresses repeated courses and grade forgiveness and states that you may not repeat a course for credit if you have earned an A, B or C in the course, or if you have had three attempts in the course at Northwest Florida State College. If a student receives a grade of F or W (or a grade of D for a course that requires a grade of C or higher) in any college-credit, vocational, or developmental course, he or she may repeat the course to improve the grade. Students are permitted a maximum of two enrollment attempts in such courses. A third and fourth attempt may be allowed only through an academic appeal process based on major extenuating circumstances. Students can request a third or fourth attempt via the *Request for Exception: Records* form which can be accessed in RaiderNet.

On the third attempt and any subsequent attempts, the student will be awarded the letter grade earned and will not be allowed to withdraw from the course. If a course is dropped prior to the close of the schedule adjustment period, or if audit status is declared prior to the end of the schedule adjustment period, the enrollment will not count as one of the attempts. However, if the student withdraws from the course after the schedule adjustment period has ended, that "W" grade will revert to a final grade of "F" when grades are calculated at the end of the semester and will appear on the student's official transcript.

Once a student has successfully completed a course he or she will not be permitted to repeat the course. In certain special or compelling circumstances, it may be possible to re-enroll after successful completion, but the student will have to seek approval by submitting a *Repeat a Previously Completed Class For A Grade Request* form. Such approved circumstances include, for example, NWF State College program requirements, teacher re-certification, license renewal, and mandated professional development. Grades earned in this manner will not replace grades earned in prior enrollments but will appear on the transcript.

For any course repeated, whether at NWF State College or elsewhere, only credit from the last attempt will be used in the computation of the student's grade point average and for meeting program requirements. Repeating a course results in an adjusted grade point average; however, if a course is repeated after the student has been awarded an NWF State College degree or certificate, the student's cumulative GPA may change, but will not affect the credential(s) previously awarded to the student. Students should be aware that some private colleges and universities, as well as out-of-state institutions, and some Florida public universities (depending on the student's major) may not accept the revised GPA or treat the repeated course in the same manner.



Repeating a Course for Credit toward Graduation

Certain courses, such as those in the fine and performing arts areas, physical education, and communications areas, may be repeated for credit toward graduation. The specific courses and the number of allowable repeat enrollments are provided in the course description section of this catalog. Only those courses designated as repeatable for credit fall into this category.

When a course is repeated under these circumstances, the full cost of instruction rule is not applicable until the maximum number of creditable repeats has been reached. All grades and credits associated with the allowable number of repeats will be considered in the student's GPA and will be considered in determining the credits for

program completion. Once the maximum number of enrollments has been reached, additional enrollments will be treated as specified in the previous section on course repeats and may be subject to the full cost rule.

Repeating Non-credit Courses

Courses that are taken through Continuing Education, the Costa Leadership Institute, Kids on Campus, or Adult Education courses, including ABE, GED, and ESOL, are not subject to repeat rules.

Grade Changes/Errors

If a student believes that an administrative error has occurred in the recording or the computation of his or her final course grade, the student should contact the instructor or the appropriate department office immediately. If an error has occurred, an adjustment to the student's permanent record (transcript) will be made within approximately ten (10) College business days after the instructor's signed grade change request has been received by the Office of Academic Records and Enrollment. The student is responsible for reporting such concerns within thirty (30) days of the close of the term in which the grade was awarded.

If a student has documentation of extraordinary or emergency circumstances which warrant recording a course withdrawal ("W") after the published deadline, he or she must submit a *Request for Exception: Records* form. If an adjustment is warranted, the change will be made within approximately ten (10) College business days of receiving all supporting documentation related to the request. The student is responsible for requesting such changes within thirty (30) days of the term in which the original grade was awarded.

Grade Grievances

If a student believes that he or she has not been graded fairly in a course, an appeal may be filed at <http://www.nwfsc.edu/disputes>.

Academic History Grade Relief Option

A student who has been unsuccessful academically (i.e. grades of "D's" and "F's") and whose credits are five or more years old may seek relief from the effect of those credits on his or her grade point average at NWF State College by submitting a *Academic Forgiveness (Grade Relief) Request* form. If the request is granted, it will apply to all credits and grades earned prior to the date specified, and the student will not be permitted to count any of those credits toward graduation or program completion. The courses and grades will remain on the student's permanent record (transcript), but will not be considered in grade point average computations at NWF State College. Financial Aid is required by federal regulation to include all credit hours attempted in calculating eligibility for federal financial aid. Grade relief cannot be granted to students who have already graduated.

A student requesting this option should be aware that the relief may not be honored by other colleges and universities; other institutions may continue to consider the older credits and grades in evaluating the student's work. Relief through this process does not excuse the student from restrictions related to repeating courses or from compliance with other applicable college policies.

Academic Standing

The College has set academic standards ranging from recognition of excellence for superior progress to the discontinuance of enrollment for inadequate progress towards these standards. Students will receive an academic standing designation for each level of coursework attempted (college-credit and vocational respectively). The standards apply to both full-time and part-time students. They apply to those students who are seeking a degree or award and those who are not. Students enrolled in a Selective Admissions program should contact the appropriate

department or division office for information on programmatic certification and/or professional accreditation standards as they pertain to demonstrating satisfactory academic progress as these may vary by program.

Good Standing

Academic Standing is calculated at the end of each semester. A student who achieves a minimum cumulative grade point average (GPA) of 2.00 shall be classified as in Academic Good Standing with the College for the given semester. A student must maintain a GPA of 2.00 to remain in Good Standing in subsequent semesters.

Not in Academic Good Standing

When a student fails to achieve the 2.00 cumulative GPA, the College will place certain restrictions on future course registrations. Students "Not in Academic Good Standing" are encouraged to take advantage of the tutorial services offered in the Academic Success Center. There are three distinct designations while "Not in Academic Good Standing" and the following regulations apply:

Academic Warning

If a student's cumulative GPA falls below 2.00, he or she will be placed on Academic Warning.

When a student is placed on Academic Warning, it is strongly recommended that you talk with a Student Success Navigator to discuss your education plan and information regarding academic support services before the next registration.

To be removed from Academic Warning at the end of the next semester, the student must achieve a minimum cumulative GPA of 2.00.

Academic Probation

If a student's cumulative GPA falls below 2.00 for two successive semesters (i.e., the student was placed on Academic Warning but was unable to achieve a minimum cumulative GPA of 2.00 by the end of the subsequent semester of enrollment), he or she will be placed on academic probation.

When a student is placed on Academic Probation, he or she will be required to meet with a Student Success Navigator once before the semester begins and again immediately following midterm. It is incumbent upon the student to schedule and to attend these meetings. A Student Success Navigator may recommend or require various remedies to promote academic success, including but not limited to, tutoring, reduced course load, and/or change of major. Students who fail to satisfy the advising requirement, or who do not follow through on any conditions attached to their probationary status, may be prevented from making changes to their course schedule and/or registering for classes in the next semester.

To be removed from academic probation, a student must achieve a minimum cumulative GPA of 2.00.

Academic Suspension

If a student's cumulative GPA falls below 2.00 for three successive semesters (i.e., the student was placed on Academic Warning, then Academic Probation, but was still unable to achieve a minimum cumulative GPA of 2.00 by the end of the subsequent semester of enrollment), he or she will be placed on academic suspension.

A student placed on Academic Suspension will be prevented from further course registration and automatically dropped from any courses in which he or she may have already enrolled for any future term. The duration of the suspension will last for one semester (one Fall, Spring, or Summer semester).

A one-time appeal may be submitted by any student wishing to request an exception to this policy. The student will be required to submit an *Academic Suspension Appeal Form* and include appropriate supporting documentation prior to the beginning of the regular semester for which the student wishes to register. Should the appeal be granted, the student will be placed back on Academic Probation for no more than one semester and subject to any conditions noted in the appeal approval. Failure to satisfy any probationary conditions may result in the student being placed back on Academic Suspension. Should the appeal be denied, the student will be required to wait one semester before re-enrolling as stipulated in the initial suspension notice.

Please note that the College's Academic Standing policy may differ from the Satisfactory Academic Progress (SAP) calculated for Financial Aid Eligibility Federal regulations (34 CFR 668.34) that require a student to move toward the completion of a degree or certificate within an eligible program when receiving financial aid. Specific requirements for academic progress for financial aid recipients are applied differently than the College's Academic Standards of Warning, Probation, and Suspension. Federal regulations state that Satisfactory Academic Progress Standards must include a review of all periods of enrollment, regardless of whether or not aid was received. The student must meet all the minimum standards in order to receive financial aid. Federal regulation requires the College to fully consider all credit hours attempted when determining aid eligibility and does not make an exception for any developmental courses or multiple attempts. For more information, please visit www.fafsa.ed.gov.

Graduation

- Additional Degrees
- Diplomas
- Effective Catalog Changes
- Graduation Ceremonies
- Graduation Honors
- Graduation Process
- Graduation Regalia

Graduation Process

Graduation at NWF State College is an automatic process, streamlining the necessary steps for students and ensuring their transcripts reflect every credential earned. Students will be automatically identified as eligible for graduation upon completion of all degree requirements, and the student will be contacted via his or her NWF State College email account to confirm that the degree or credential can be awarded. Students may opt-out of the automatic process with the Office of Academic Records and Enrollment at any time prior to the deadline published within the student's eligibility notification sent via his or her NWF State College email account. Students opting out of auto-graduation understand that the Office of Academic Records and Enrollment will not award the credential until such time as the student provides approval (the credential will then be awarded during the normal award deadline for the semester in which approval was granted and the student cannot request that the award be back-dated to a prior semester).

During the months of October (Fall), March (Spring) and June (Summer), the College will conduct a preliminary review of each currently enrolled student's degree audit. Students who will be "100% program complete" at the end of the term will be eligible for graduation. An email will be sent to the NWF State College student email account of eligible students informing them of their graduation status and inviting them to participate in the spring commencement ceremony.

To be eligible for graduation, a student must have a complete admission file, including official transcripts from all previous institutions attended. If a student has an incomplete file or is completing the remaining course(s) as a transient student at a different institution, the Office of Academic Records and Enrollment must receive all outstanding items by the graduation deadline. Students should always check their NWF State College student email account for notifications regarding relevant deadlines.

Students are responsible for selecting courses which meet program requirements and for earning the required minimum grades in those courses. Contact a Student Success Navigator no later than two semesters prior to the anticipated graduation date to schedule an appointment and confirm all requirements. Students may review their graduation progress through the DegreeWorks degree audit component of RaiderNet.

At the end of the semester, all eligible students will be reviewed for a final check of program completion. Unsuccessful graduation candidates will be notified which outstanding requirements prevented the student from graduating for the current semester and encouraged to follow-up with a Student Success Navigator to determine the best path forward to degree completion.

Effective Catalog Policy

Students must follow the requirements outlined in the College Catalog in effect for the term in which the student is admitted (students admitted into a program for Fall 2019, Spring 2020, or Summer 2020 will fall under the 2019-2020 College Catalog). Students are expected to complete the program within five catalog years. A student who does not maintain continuous enrollment (breaks enrollment) and is required to re-apply to the College must complete requirements for graduation under the catalog in effect for the term of re-admission. Continuous enrollment is defined

as enrollment in at least one course per major semester (Fall, Spring) during an academic year. A student who does not complete the requirements within five catalog years will be evaluated for graduation using current catalog requirements.

Additional Degrees

A student who earns a degree at NWF State College may be granted a second or additional degree under the following conditions:

- No more than one Associate in Arts degree may be granted.
- A Bachelor of Science, Bachelor of Applied Science, Associate in Science, and/or Associate of Applied Science degree may not be earned in the same program.
- The written degree plan for an additional Bachelor of Science or Bachelor of Applied Science degree shall specify the prerequisite and core courses for the additional degree. In meeting these requirements, the student may use courses completed for a previous degree. However, the student must complete at least 30 additional credits. The additional 30 credits may be core credits and/or general education credits but are usually technical courses that support the specific program of study. The degree plan including the additional required courses must be approved in advance by the appropriate Department Chair/Division Director, the Executive Director of Academic Records and Enrollment, and the Vice President of Teaching & Learning.
- The written degree plan for an additional Associate in Science degree shall specify the pre-requisite and core courses for the additional degree. In meeting these requirements, the student may use courses completed for a previous degree. However, the student must complete at least 15 additional credits unless otherwise noted on an approved program of study. The additional 15 credits may be core credits and/or general education credits but are usually technical courses that support the specific program of study. The degree plan including the additional courses must be approved in advance by the appropriate Department Chair/Division Director, the Executive Director of Academic Records and Enrollment, and the Vice President of Teaching & Learning.
- Students who have been awarded a State of Florida AA degree, a baccalaureate degree from a regionally accredited institution or a comparable international institution may meet some of the graduation requirements by virtue of their previous degree. This may include general education requirements or other program-specific graduation requirements. However, prerequisites for major courses are still required. Students should contact a Student Success Navigator for additional information.
- All other requirements for graduation remain in effect for students pursuing additional degrees.

Graduation Honors

For students enrolled in a degree program (Baccalaureate and Associate) at the time of graduation, a student's total academic record is included in the calculation to determine recognition of outstanding academic achievement. If the student's cumulative grade point average (GPA) meets the standards, and if the student meets all other graduation requirements, he or she will be graduated with the appropriate level of honors. The following honors will be posted on the diploma and the transcript as applicable:

Cum Laude	Magna Cum Laude	Summa Cum Laude
Cumulative GPA of 3.50 – 3.79	Cumulative GPA of 3.80 – 3.99	Cumulative GPA of 4.00

For students enrolled in a certificate or diploma program (Career and Technical, Vocational, College Credit or Applied Technology Diploma) at the time of graduation, all coursework pursued toward the certificate or diploma will be included in the calculation to determine recognition of outstanding academic achievement. If the student's grade point average for the certificate or diploma course meets the standards, and if the student meets all other graduation

requirements, he or she will be graduated with the appropriate level of honors. The following honors will be posted on the diploma and the transcript as applicable:

Honors	High Honors	Highest Honors
Cumulative GPA of 3.50 – 3.79	Cumulative GPA of 3.80 – 3.99	Cumulative GPA of 4.00

Graduation Ceremony

NWF State College hosts two graduation ceremonies at the end of the Spring semester. The ceremonies honor graduates from the previous Summer and Fall semester, as well as potential Spring semester graduates. Students participating in the ceremony must RSVP prior to the ceremony. Once identified as eligible to participate in the ceremony, students will be contacted via his or her NWF State College email account with instructions on how to RSVP. For more information regarding the Commencement Ceremony, please refer to the Graduation webpage.

Graduation Regalia

Graduation regalia to include cap, gown, tassel, and baccalaureate stole are available at the Barnes and Noble College Store located on the Niceville campus approximately four weeks prior to graduation. Graduation regalia are required for participation. Honor cords are provided by the College and are given out at the Commencement check-in station on the day of the ceremony. Please note that because the Commencement Ceremony takes place prior to the posting of final grades for the Spring semester, potential Spring graduates will have honor cords assigned based on the honor designation as of the completed Fall semester. Once final grades are posted, the final honors designation will appear on the student's official transcript. For more information regarding graduation, please refer to the Graduation webpage. For additional information concerning graduation regalia, please call the Niceville Barnes and Noble College Store at (850) 729-5384.

Diplomas

Diplomas are mailed 6-8 weeks after the close of each semester to the address on the graduation application.

- Educational records are maintained under a student's full legal name. This is the First Name, Middle Initial/Middle Name, Last Name, and Suffix. However, other names for which the student may be known are also included within the student's file. The name that appears on the diploma may be chosen by the student from the following: full legal name, preferred name, or any alternate name already on file. On the graduation application, a student may only edit his or her middle name and/or suffix; otherwise, the name selected for use on the diploma must be one that is already on file within the College's Student Information System. An edit made to the middle name and/or suffix on the graduation application will only affect the name on the printed diploma, not the student's legal name as it appears in the College's Student Information System. Any other desired changes to the first or last name will require the student to submit a name change request to the Office of Academic Records and Enrollment via the *Update Personal Information Form* and provide appropriate supporting documentation as applicable.

Campus Services

- Academic Success Center (ASC)
- Accommodation Resource Center (ARC)
- AmeriCorps
- ATM Machines
- Barnes & Noble College Store
- Career Exploration
- Child Development Center
- Photocopies
- Raider Café
- Susan Myers Learning Resources Center (LRC)
- Veterans Success Center

Susan Myers Learning Resources
Center

Academic Success Center (ASC)

The ASC is located in the Susan Myers Learning Resources Center Building 500 on the Niceville Campus. The ASC provides free learning support services such as tutoring and study skill assistance for all NWF State College students. Individual and group tutoring is available in a wide range of subjects on a walk-in-basis and by appointment. The ASC also offers online video conferencing sessions and a submit a paper option. For more information, call the Academic Success Center at (850) 729-5389.

Math Labs are located in the Math Building 300, Room L-131, on the Niceville Campus; in Building 7, Room 702 on the Fort Walton Beach Campus and Room 131 at the Crestview Center. The math labs are open to all students and provide free walk-in tutoring for all mathematics courses. For lab hours, students may call the Math Department at (850) 729-5377.

Accommodation Resource Center

The Accommodation Resource Center (ARC) of Northwest Florida State College is committed to providing equal access and opportunities for our students with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the ADA Amendments Act of 2008. The ARC helps navigate accessibility for students with disabilities by removing educational barriers and partnering with the campus community for inclusion and support.

Students in need of accommodations must be registered for courses and are encouraged to submit a request online by visiting www.nwfsc.edu/accommodations. Students who register may be eligible for accommodations such as, but not limited to note-taker, scribe, interpreter, extended time for testing, course substitution, and use of an audio recording device. Registered students with the ARC must renew their accommodations at the beginning of each semester by filling out and submitting an ARC renewal form located in Raidernet. Confidentiality is honored and maintained. Students may contact the arc at arc@nwfsc.edu or by calling 850-729-6079.

Telephone Device for the Deaf (TDD) numbers are available through the Florida Telecommunication Relay Service:

Voice:	711 or 1-800-955-8770
TDD:	711 or 1-800-955-8771

Northwest Florida State College does not discriminate against qualified individuals with disabilities in any of our programs, services, or activities based on Title II of the Americans with Disabilities Act.

AmeriCorps

AmeriCorps is a component of the National Service Network. Its goal is to engage Americans of all ages and backgrounds in service to help meet communities' critical education, public safety, environmental, and other human needs and homeland security. AmeriCorps is often referred to as the "Domestic Peace Corps".

Full-time members serve a minimum of 1720 hours per service year. They receive a taxable living allowance of \$13,992 per year while serving and a \$6,095 education award voucher at the end of the service commitment. Other benefits for full-time members include healthcare insurance and student loan deferment and childcare (if qualified).

For more information, please call (850) 729-6037 for information on the program.

ATM Machines

ATM machines are located in the Activities Center, Building 410 and the Raider Cafe` in Building 400 on the Niceville Campus and in Building 1 on the Fort Walton Beach Campus.

Barnes & Noble College Stores

NWF State College has two College Stores which are operated by Barnes & Noble College. The College Store on the Niceville Campus is located in the Activities Center, Building 410. The Fort Walton Beach Campus College Store is located in the Student Services Building. Both stores are full-service stores offering textbooks, supplies, college clothing, gift items, hardware, and software. The stores maintain extended hours during back-to-school and book buy back periods. Contact the College Store or visit the Barnes & Noble College Store website for store hours.

Career Exploration

Students who are undecided about their future career plans are encouraged to make an appointment with a Student Success Navigator, Building 400 on the Niceville Campus (Phone 850.729.5227) to discuss career opportunities.

- Computerized career exploration programs:
 - My Career Shines is a Career Planning tool hosted by the state of Florida and available on any computer. The NWF State College Career Center has computers available in their Career Counseling area for students to access this powerful program to set up an account and explore career, education and scholarship opportunities.

Mary Lou O'Connor Child Development and Education Center

The College's Mary Lou O'Connor Child Development and Education Center provides comprehensive, quality care for children ages 2.5 to 5. The center is nationally accredited and is open to dependents of NWF State College students, staff, faculty and members of the community on a space available basis. The center is located in Building 530 on the Niceville Campus and is open Monday through Friday from 7:00 am to 5:30 pm. The college participates in the Florida Voluntary Pre-Kindergarten (VPK) program. For more information call (850) 729-5386.

Photocopies

The RaiderCard may be used to make copies at the locations listed below.

- Niceville Campus - The Susan Myers Learning Resources Center
- Fort Walton Beach Campus – Library Building 8

Raider Café

The Raider Café, located in the Activities Center, Building 410, on the Niceville Campus, is open Monday through Friday from 7:15 am to 2:00 pm during the Fall and Spring Terms and Monday through Thursday from 7:30 am to 2:00 pm during the Summer Term. Vending machines are available at the Fort Walton Beach Campus in the Student Services Building, Building 6 and Building 3. Vending machines are also available in the student lounge areas at the Chautauqua and Sikes Centers.

Susan Myers Learning Resources Center

During the Fall and Spring Terms, the library is open Monday through Thursday from 7:30 am to 8:00 pm, Fridays from 7:30 am to 4:30 pm, and Saturdays from 9:00 am to 1:00 pm. Hours vary during the Summer Terms. Please visit the LRC website for hours and additional information or call (850) 729-5318.

Veterans Success Center

The Veterans Success Center, located in the Student Services Center, Building 400 on the Niceville campus, can assist Veterans and families with educational goals and transition into the workplace.

Raider Life

Get Involved

College is much more than just academics. The invaluable experiences gained through co-curricular activities can't just be delivered in the classroom alone. The term "co-curricular" replaced the previously used term "extra-curricular" to emphasize that your involvement outside the classroom goes hand in hand with your classroom academics!

Raider Life strives to cultivate a campus environment that promotes equity, opportunities for all students to participate in extracurricular activities, and the environment for each student to learn and practice essential skills needed after college life. Raider Life provides support to students, student organizations, community service projects, and community activities that may enhance the quality of educational life for students. Raider Life also provides social and cultural enrichment opportunities in Okaloosa and Walton counties.

Athletics

NWF State College is an active member of the National Junior College Athletic Association (NJCAA) and the Florida College System Activities Association (FCSAA) which is composed of all public community and state colleges in Florida. Visit Raider Athletics for more information.

Intercollegiate Sports

Intercollegiate Sports operate under the rules and regulations of NJCAA and FCSAA. Varsity athletes enjoy the privilege, honor, and social distinction of representing the college in the field of athletic competition. Representation of the college is open by competitive selection to all students provided they meet the eligibility requirements of the FCSAA. Intercollegiate sports include basketball for men and women, baseball for men, and fast-pitch softball for women.

Student Organizations

Raider Life oversees a wide variety of student organizations that cover many interests and activities. Membership is open to all students who qualify, without regard to age, color, creed, handicap, marital status, national origin, race, religion or sex, except for those particular groups which are selective on the basis of scholarship. For more information on getting involved with a student organization or starting one, visit Raider Life or contact the office at (850) 729-5348.

Student Government Association

Student Government Association (SGA) provides a voice for the Northwest Florida State College student body in all college affairs while helping to further the goals of the college from a student perspective. The President of SGA is a member of the Administrators, Supervisors and Professionals Council (ASP) and represents the student body. The SGA president receives a yearly tuition scholarship. The SGA Senate and President are housed in the Activities Center.

SGA participates with the Florida College System Student Government Association (FCSSGA) in representing students across the state to advocate change in Florida legislation beneficial to all college students. Lastly, SGA coordinates and regulates various activities for students such as fall and spring flings and various service learning opportunities.

All currently enrolled students of NWF State College are members of SGA with the right to full voice, upon recognition, in all SGA functions. However, the only students with the right to vote in SGA functions are; the elected

Vice-President, elected and appointed Senators, and appointed Officers of the SGA Executive Board; In the event of a tie vote at any SGA function, the SGA President will cast the deciding vote.

Student Activities Board

Student Activities Board (SAB) provides coordination among all of student clubs and organizations. The executive board consists of a member from each of the school sanctioned organizations: Brain Bowl, Forensics, Phi Theta Kappa, and SGA. The SAB makes budgeting decisions regarding student activity funding. The vice president of SGA is the presiding officer and receives a tuition scholarship.

The names of recognized student organizations are owned by NWF State College. Students or others shall not organize independent groups of the same name nor function as a group independent of the college utilizing the name of a NWFSC student organization.

Student Organization Terms

Each student activity, club, and organization authorized to function in the name of the College shall be organized, chartered and operated in accordance with Florida Statutes, State Board Rules, NWF State College Student Handbook, and the Student Organization Handbook. Visit Student Life for more information.

Student Handbook

Notice of Equal Access / Equal Opportunity and Nondiscrimination

Northwest Florida State College is dedicated to the concepts of equity and equal opportunity. It is the specific intention of the college not to discriminate on the basis of age, color, ethnicity, disability, marital status, national origin, race, pregnancy, religion, genetic information, or gender, in its employment practices or in the admission and treatment of students in its programs or activities.

Title IX of the Education Amendments of 1972 (20 U.S.C. ss1681) is an all-encompassing federal law that prohibits discrimination based on the sex of students, employees, and third parties when appropriate, of educational institutions which receive federal financial assistance. Sexual harassment of students, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. Northwest Florida State College complies with all aspects of this and other federal and state laws regarding non-discrimination.

Anyone with questions about compliance or a complaint regarding harassment or discrimination, including sexual harassment and sexual violence of Title IX, should contact the College's Equity Coordinator using the following contact information:

Roberta Mackey

Executive Director of Human Resources, Equity Coordinator

100 College Blvd. East, Niceville, FL 32578

Building: 320

Phone: (850) 729-5337

Email: mackeyr@nwfsc.edu

The college environment is an open intellectual forum where varying opinions may be freely expressed and fairly debated. Each member of the college is expected to participate seriously and purposefully in college life. While the freedom to express ideas and beliefs will be respected, conduct and behavior that result in the defacement of property, intimidation of others, or the disruption of any college activity will not be tolerated or permitted and will be subject to disciplinary action. Instructors explain classroom requirements, and students are expected to assume full responsibility for their own actions.

College Accreditation

Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

Northwest Florida State College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate and baccalaureate degrees. Contact the Southern Association of Colleges and Schools at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Northwest Florida State College.

NWF State College Website

The Northwest Florida State College website is located at www.nwfsc.edu. The website provides access to College information such as admission, registration, financial aid, bookstore, Raider life, academic resources, instructor websites and more.

Academic Calendar

Fall Semester 2019 (202010)

Registration - Current Students	Apr 1		
Registration - Open Enrollment (New, Dual, and Readmitted)	Apr 8		
Financial aid (FAFSA) priority ¹ deadline	May 15		
Financial Aid disbursement date	Sep 10		
VA deferment date	Oct 19	Sep 30	Oct 19
Tuition Payment Plan (NelNet) Enrollment Period	Jul 1 - Aug 15		
Tuition Payment Deadlines (Due by 6AM ²)	Jul 31, Aug 14, Aug 21, Aug 27		
Financial Aid Book Sales at College Store	Jul 29 - Sep 4		
Admissions priority ¹ deadline	Jul 1		
Deadline to submit documentation to qualify for in-state residency	Aug 18		Oct 10
Deadline to Enroll in Class Wait List	Aug 25		Oct 17
	Session 1	Session 2	Session 3
	(Full Term)	(1st Half of Term)	(2nd Half of Term)
First Day of Classes	Aug 19	Aug 19	Oct 11
Schedule Adjustment(Drop/Add) Period	Aug 19 - Aug 26	Aug 19 - Aug 26	Oct 11 - Oct 18
Midterm grades posted ³	Oct 14		
Last Day to Withdraw or Change to Audit	Nov 1	Sep 25	Nov 23
Last Day of Classes	Dec 6	Oct 9	Dec 6
Final Exams	Dec 9 - Dec 13	Last Day of Classes	Last Day of Classes

Last Day of Term for Students	Dec 13	Oct 9	Dec 13
Final grades posted ³	Dec 16	Oct 10	Dec 16

Holidays (College Closed) - Fall 2019

Sep 2	Labor Day
Nov 11	Veterans' Day
Nov 27 - Dec 1	Thanksgiving Break
Dec 17 - Jan 1	Winter Holiday Break

Faculty return to campus	Aug 14

Last day of term for Faculty	Dec 16	Oct 10	Dec 16

Spring Semester 2020 (202020)

Registration - Current Students	Nov 4		
Registration - Open Enrollment (New, Dual, and Readmitted)	Nov 13		
Financial aid (FAFSA) priority ¹ deadline	Oct 1		
Financial Aid disbursement date	Feb 4		
VA deferment date	Mar 9		Feb 21 Mar 9
Tuition Payment Plan (NelNet) Enrollment Period	Nov 4 - Jan 6		
Tuition Payment Deadlines (Due by 6AM ²)	Dec 11, Jan 9, Jan 16		
Financial Aid Book Sales at College Store	Dec 2 - Jan 22		
Admissions priority ¹ deadline	Nov 1		
Deadline to submit documentation to qualify for in-state residency	Jan 7		Mar 3
Deadline to Enroll in Class Wait List	Jan 14		Mar 10

	Session 1	Session 2	Session 3
	(Full Term)	(1st Half of Term)	(2nd Half of Term)
First Day of Classes	Jan 8	Jan 8	Mar 4
Schedule Adjustment (Drop/Add) Period	Jan 8 - Jan 15	Jan 8 - Jan 15	Mar 4 - Mar 11
Midterm grades posted ³	Mar 9		
Last Day to Withdraw or Change to Audit	Mar 27	Feb 13	Apr 15
Last Day of Classes	Apr 28	Mar 2	Apr 28
Final Exams	Apr 29 - May 5	Last Day of Classes	Last Day of Classes
Commencement	May 2		
Last Day of Term for Students	May 5	Mar 2	May 5
Final grades posted ³	May 6	Mar 3	May 6
Holidays (College Closed) - Spring 2020	Jan 20	Martin Luther King Jr. Day	
	Mar 16-22	Spring Break	
NWF Staff return to campus	Jan 2		
Faculty return to campus	Jan 6		
Last day of term for Faculty	May 6	Mar 3	May 6

Summer Semester 2020 (202030)

Registration - Current Students	Apr 6
Registration - Open Enrollment (New, Dual, and Readmitted)	Apr 13
Financial aid (FAFSA) priority ¹ deadline	Feb 1

Financial Aid disbursement date	Jun 8						
VA deferment date	Jul 17		Jun 15		Jul 17		Jul 17
Tuition Payment Plan (NelNet) Enrollment Period	Apr 6 - May 15						
Tuition Payment Deadlines (Due by 6AM ²)	To be Announced						
Financial Aid Book Sales at College Store	Apr 27 - May 29						
Admissions priority ¹ deadline	Apr 1						
Deadline to submit documentation to qualify for in-state residency	May 17		Jun 28		Jun 14		
Deadline to Enroll in Class Wait List	May 25		Jul 5		Jun 21		
	Session 1	Session 2	Session 3	Session 4			
	(Full Term)	(1st Half of Term)	(2nd Half of Term)	(Late-Starting)			
First Day of Classes	May 18	May 18	Jun 29	Jun 15			
Schedule Adjustment (Drop/Add) Period	May 18 - May 26	May 18 - May 26	Jun 29 - Jul 6	Jun 15 - Jun 22			
Last Day to Withdraw or Change to Audit	Jul 13	Jun 11	Jul 24	Jul 21			
Last Day of Classes	Aug 7	Jun 25	Aug 7	Aug 7			
Final Exams	Last Day of Classes	Last Day of Classes	Last Day of Classes	Last Day of Classes			
Last Day of Term for Students	Aug 7	Jun 25	Aug 7	Aug 7			
Final grades posted ³	Aug 10	Jun 26	Aug 10	Aug 10			
Holidays (College Closed) - Summer 2020	May 25	Memorial Day					
	Jul 3	Independence Day (observed)					

Last day of term for Faculty

Aug 10

Jun 26

Aug 10

Aug 10

¹Meeting priority deadlines ensures paperwork is processed prior to first day of class; applications are still accepted after the priority deadline and processed in order of receipt.

²Students may pay fees in RaiderNet by clicking on the "Pay Fees" tab.

³Preferably, faculty will submit course grades within 24 hours of each final exam. All grades are required to the Registrar by 11 am on the day final grades are posted.

Approved by Board of Trustees Feb. 2019

Costs and Refunds

These fees are subject to change by the Florida Legislature and the Board of Trustees based on the June 2018 Board Meeting. Current fees are available from the College Business Office and are published in the class schedule. These fees apply whenever applicable, except: (1) for courses in which complimentary instructional services or equivalent program costs are provided by appropriate persons, agencies or organizations; or (2) when specifically waived by the Board of Trustees. Active Duty Military and their dependents pay only Florida Resident, in-state fees, see the residency portion of the catalog. The fees listed below are for the 2015-2016 academic year.

Fees Subject to Change by Action of the Florida Legislature and the NWF State College Board of Trustees without notice.

	Instate Tuition per credit hour	Border State (Alabama) Tuition per credit hour	Out-of-State Tuition per credit hour
Baccalaureate (College Credit)	\$122.59	\$123.59	\$450.86
Advanced & Professional (College Credit)	\$104.01	\$105.01	398.02
Postsecondary Voc. (College Credit)	\$104.01	\$105.01	398.02
Developmental	\$104.01	\$105.01	398.02
Postsecondary Adult Vocational (Voc. Credit)	\$86.10	\$87.10	344.10
Adult Basic & Adult Secondary	\$30.00	\$30.00	30.00

Laboratory and Special Tuition Fees exist to cover unique costs related to a given course. The amount is determined course-by-course and is based on the instructional costs for each. A fee schedule is on file in the Business Office and is printed in the class schedule each session.

Full Cost of Instruction for Third Attempt

College credit and developmental course enrollments beginning with the third attempt in the same course pay the full cost of instruction (based on action by the Florida Legislature).

Refunds

You can receive a full 100% refund up to and during the schedule adjustment period for the term. Refund checks will only be issued for \$1.00 or more. Refunds less than \$1.00 will be paid in cash at the Business Office on the Niceville Campus.

You may request a full refund after the schedule adjustment period by completing the refund request form found below. Only the following refund requests are considered valid and will be approved: Serious illness, military orders, death of the student or student's immediate family, circumstances beyond the student's control, or administrative college error. Refunds are NOT authorized for changes in work schedules or for enrollment status changes due to illegal activities. Refund requests must be submitted before the midterm and may only apply to the current semester. Drop off your completed refund request form to the Executive Director of Records and Enrollment, or email it to linards@nwfsc.edu.

The refund request process may take up to 10 business days. You will be notified of the disposition via your college email account.

Grades

Grades are awarded in all college, vocational, and developmental courses, as well as in certain non-credit courses. NWFSF maintains permanent records for all students registering for courses. A cumulative record of the student's grades appears on the transcript. Letter grades are assigned according to the grades table shown later in the section of the catalog.

Because the awarding of course grades is the responsibility of the instructor, it is essential that faculty members keep students informed of their progress in each course by providing students regular and timely feedback. A student has a right to a course grade that represents the instructor's professional judgment of the student's performance in the course, without personal prejudice. An instructor has a right to expect that the work presented for evaluation or submitted as classroom projects is that of the student acting alone without benefit of any aids or practices that are generally considered academically dishonest.

Grade Point Average (GPA)

The student's permanent record also contains grade point average (GPA) calculations. The student's GPA is used in determining academic standing, graduation readiness, eligibility for the President's and Dean's Lists, and in other academically related decisions. Your semester grade point average represents the average of your grades for only one semester. Your cumulative grade point average represents the average of the grades of all courses you have taken at NWFSF. Only grades for courses at 1000 level or above are used to compute GPA for graduation.

To determine the grade point average, multiply the number of quality points for each grade received by the number of Credit hours for that course. Then divide the total number of quality points by the total number of Credit Hours attempted excluding courses with W, I, and Audit grades. A GPA calculator is available on RaiderNet.

Credit hours pursued is defined as those credits in which a grade of A-F has been awarded. Grades of S, P, U, I, V, N, W, and X, do not carry grade quality points. In general, credits for these grades do not count in hours pursued. However, in certain other circumstances, such as determination of repeat enrollments, and in computation of certain specialized GPA's, credits which carry these grades may be included in the GPA computation.

Grade	Grade Quality Points

A	4

B	3

C	2
D	1
F	0

Example Course	Grade	Grade Points		Credit Hours	Quality Points
Speech	C	2	x	3	6
Algebra	C	2	x	3	6
American Literature	B	3	x	3	9
Chemistry	D	1	x	4	4
Health Science	A	4	x	2	8
Total Points					33
Total Semester Credit Hours				15	33/15=
GPA					2.20

Incomplete Grades

At the instructor's discretion, a grade of "I" may be given when a student is unable to complete the required work because of clearly documented extenuating circumstances and if the student has demonstrated through successful completion of a significant portion of the course requirement that he/she has a reasonable chance of making a passing grade. The instructor files with the department chair, and with the student concerned, an outline of the work that must be completed, including an estimate of the student's grade standing for work already completed during the term. Work for the removal of the "I" must be completed prior to the LAST CLASS DAY in the next 16-week term immediately following except where course requirements mandate otherwise. Students completing course work to remove the "I" must do so outside the regular classroom setting. The grade will revert to an "F" on the official transcript if not removed by that time. A student will not be permitted to re-enroll in a course which he/she has an outstanding grade of "I" or for a class that has that course as a prerequisite.

In extraordinary circumstances, a deferred incomplete grade of "V" may be awarded when approved absences preclude satisfactory course completion by the end of the next 16-week term of enrollment.

Repeating Courses

Repeating a Course to Improve the Grade

If a student receives a grade of D, F, W, or U in a college credit, vocational or developmental course, he/she may repeat the course to improve the grade. Students are permitted a maximum of two enrollment attempts in such courses. A third and fourth attempt may be allowed only through an academic appeal process based on major extenuating circumstances. Any attempt to enroll in a course for a third/fourth attempt should be directed to the Registrar. On the third attempt, and any subsequent attempts, the student will be awarded the letter grade earned (A,

B, C, D, F, S, U, or P) and will not be allowed to withdraw from the course. If a course withdrawal (drop) is processed prior to the close of the schedule adjustment period, or if audit status is declared prior to the end of the schedule adjustment period, the enrollment will not count as one of the attempts. Once a student has successfully completed a course (received a grade of A, B, C,) he/she will not be permitted to repeat the course. In certain special or compelling circumstances, it may be possible to re-enroll after successful completion, but advance written approval must be obtained from the Vice President of Academic Affairs. Such circumstances include, for example, NWFSC program requirements, teacher recertification, license renewal, and mandated professional development. Grades earned in this manner will not replace grades earned in prior enrollments but will appear on the transcript.

For any course repeated, whether at NWFSC or elsewhere, only credit from the last attempt will be used in the computation of the student's grade point average and for meeting program requirements. Repeating a course results in an adjusted grade point average; however, if a course is repeated after the student has earned his/her A.A. degree, the student's grade point average will not change. Students should be aware that some private colleges and universities, as well as out-of-state institutions, and some Florida public universities (depending on the student's major) may not accept the revised GPA or treat the repeated course in the same manner.

Per Florida statute 1009.285, after the second attempt in a developmental course, college credit or vocational course, a student will be required to pay the full cost of instruction (approximately four times the usual matriculation fees) to repeat the course. In documented cases of financial hardship or extenuating and compelling circumstances, the full cost requirement may be appealed through the Registrar's Office. Students receiving financial aid or veterans benefits should consult with a financial aid advisor before repeating a course; benefits and aid may not be available for certain repeat enrollments.

Repeating a Course for Credit toward Graduation

Certain courses, such as those in the fine and performing arts areas, physical education, and communications areas, may be repeated for credit toward graduation. The specific courses and the number of allowable repeat enrollments are provided in the course description section of this catalog. Only those courses designated as repeatable for credit fall into this category.

When a course is repeated under these circumstances, the full cost of instruction rule is not applicable until the maximum number of creditable repeats has been reached. All grades and credits associated with the allowable number of repeats will be considered in the student's GPA and will be considered in determining the credits for program completion. Once the maximum number of enrollments has been reached, additional enrollments will be treated as specified in the previous section on course repeats and may be subject to the full cost rule.

Repeating Non-credit Courses

Courses taken through Continuing Education, PRIME Time, the Institute for Professional Development, Kids on Campus, or Adult Education courses, including ABE, GED, and ESOL, are not subject to repeat rules.

Grade Changes/Errors

If a student believes there is an inadvertent error in the recording or the computation of his/her final course grade, the student should contact the instructor or the appropriate department office immediately. If an error has occurred, an adjustment to the student's permanent record (transcript) will be made within approximately ten (10) working days. The student is responsible for reporting such concerns within thirty (30) days of the close of the term in which the grade was awarded.

If a student has documentation of extraordinary or emergency circumstances which warrant recording a course withdrawal ("W") after the usual deadline, he/she must submit a written request for such change to the Office of

Academic Affairs. If an adjustment is warranted, the change will be made within approximately ten (10) days. The student is responsible for requesting such changes within thirty (30) days of the term in which the original grade was awarded.

Grade Grievances

If a student believes that he/she has not been graded fairly in a course, a grievance may be filed. See *Student Complaint and Grievance Procedure* for more information.

Academic History Grade Relief Option

A student who has been unsuccessful academically (i.e. grades of "D's" and "F's") and whose credits are ten or more years old may seek relief from the effect of those credits on his/her grade point average at NWFSC by submitting a written request to the Vice President of Academic Affairs. If the request is granted, it will apply to all credits and grades earned prior to the date specified, and the student will not be permitted to count any of those credits toward graduation or program completion. The courses and grades will remain on the student's permanent record (transcript), but will not be considered in grade point average computations at NWFSC.

A student requesting this option should be aware that the relief may not be honored by other colleges and universities; other institutions may continue to consider the older credits and grades in evaluating the student's work. Relief through this process does not excuse the student from restrictions related to repeating courses or from compliance with other applicable college policies.

RaiderNet

RaiderNet is the student on-line information and registration system. RaiderNet provides access to update contact information, register for classes, view grades, obtain unofficial transcripts, enrollment verification, degree audit, and financial aid status. To access RaiderNet from the college's homepage, click the quick link "RaiderNet" on www.nwfsc.edu. For questions concerning access to RaiderNet, call (850) 729-6922.

Student Email Accounts

Students are assigned an NWF State College student email account during the application for admission process. The student email address serves as the official method of communication to the student from the college. This email service is reserved for college business. For more information and to access student email, go to www.nwfsc.edu. Send questions concerning access to student email to helpdesk@nwfsc.edu or call (850) 729-5396.

Attendance

Regular and prompt attendance in all classes is expected. All instructors are free to establish attendance policies for their classes. It is the student's responsibility to notify the instructor and make arrangements to complete any missed work. (Make-up work is offered solely at the discretion of the instructor.) Excessive absences can affect the success of course completion and financial aid funding. This general policy applies to the student absent from class traveling as a member of a college group, or club or for personal reasons.

Religious Observance by Students

The College shall accommodate recognized religious observances of students under existing State directives. Provision shall be made for students to complete the following activities when their religious observances interfere with the following:

1. Admission and registration
2. Attendance in class, class activities, examinations, and official ceremonies
3. Class work assignments

Students wishing to participate in any recognized religious holiday observances are to let the instructor know, in advance, of their absence. Students will be excused for such absences without penalty. Students are responsible for any material covered during their excused absence. A reasonable amount of time will be allowed to complete make up assignments. Students who believe they have been denied an education benefit because of their religious belief or practice may seek redress as outlined in the Student Grievance Procedures.

Children on Campus

NWF State College values family life and has worked to develop policies that are supportive of families. However, it is the policy of NWF State College that students and visitors should not use the College in lieu of a childcare provider. Accordingly, minor children of employees, students, or visitors may be on campus only under the special circumstances outlined below. Contact the Vice President of Student Success for any questions or concerns.

- Minor children are permitted on campus when the purpose of their visit is to participate in activities, classes, or events specifically scheduled for their benefit (e.g. Kids on Campus, Children's Fine Arts Series, Child Development and Education Center).
- Minor children are permitted on campus when with a parent or responsible adult who is conducting routine business at the college.
- Minor children are not permitted in labs, shops, construction/repair sites, classrooms, offices, labs, or other areas where potential hazards exist, unless enrolled in classes or activities scheduled at the site.
- In an emergency or other compelling situation, students or staff may bring children to class or the workplace on an incidental, individual basis, provided advance approval is obtained from the appropriate administrator. In such cases, the children must be directly supervised by the parent/adult and must not disrupt or distract the flow of college work, services or instruction.
- Minor children on campus must be directly supervised at all times.

Service Animals

Service animals are permitted on NWF State College campuses. Service animals are defined by the American Disabilities Act (ADA) as "*dogs that are individually trained to do work or perform tasks for people with disabilities.*" Please see the ADA Requirements and Florida Statute 413.081 regarding services animals. Therapeutic animals are not considered to be service animals and are not permitted on NWF State College campuses.

Service animals must be under control of the handler at all times. The handler is responsible for the care, cleanup of all animal waste, and for ensuring that the animal is not disruptive to any program, service, learning environment, or college activity. A service animal may be removed by state, local government, campus authorities, or the handler may be requested to remove the animal from college premises, if it is disruptive, aggressive, unhygienic, or behaving in ways outside the duties of a service animal (wandering, barking, etc.)

Mental Health Counseling Services

Northwest Florida State College has teamed up with local agencies to provide mental health counseling services for NWF State College students who need assistance coping with the challenges of college life, as well as, academic performance. Referrals are handled through the Vice President of Student Success, located in the Student Services Center at the Niceville campus.

- Pattison Professional Counseling and Mediation Center helps students overcome personal challenges. Refer to www.ppcfl.com or (850) 863-2873 for additional information.

- Bridgeway Center is a non-profit psychological healthcare company in Okaloosa County serving children, adults, and families. Refer to www.bridgewaycenter.org or (850) 833-7500 / (850) 689-7810 for additional information.
- Florida Panhandle 211 Get Connected, Get Answers COPE Center is a referral hotline staffed with trained certified resource specialists to offer guidance and support to citizens of Walton County. By dialing 211 from any phone, people will be linked to services for clothing, food, financial assistance, employment, dentistry, healthcare providers, transportation, tutoring, child care, home health care, counseling, drug rehabilitation, and evaluations etc. Call (850) 892-8045 for additional information.
- Crestview Health Center provides low cost medical, dental, and counseling services to everyone, including uninsured and underinsured. Call 850-682-1164 for more information.

AIDS and HIV

Northwest Florida State College Policy #GP12.00 and FS 1006.68 states that students with AIDS or who are HIV positive are not denied admission to the college. Students are encouraged to confidentially disclose to the Disability Support Services if needed to obtain accommodations in classrooms such as lab classes. The Vice President of Student Success has a referral system for regional health services for assistance.

Substance Abuse

NWF State College Drug-Free Work Place policy #HR 4.00 states that Northwest Florida State College is alcohol and drug free in accordance with Public Law 100-690, The Anti-Drug Abuse Act of 1988. The unlawful manufacture, distribution, dispensation, possession, or use of alcohol or a controlled substance is prohibited in and on NWFSC owned and controlled property except for events specifically approved to include alcohol. Students in violation will be subject to disciplinary action as stated in the Student Code of Conduct published in the Student Handbook/College Catalog and may be subject to criminal prosecution.

Tobacco Use

NWF State College Smoking and Tobacco policy #HR 23.00 states:

Beginning January 1, 2019, smoking and the use of all tobacco products (including Ecigarettes, vaping and smokeless tobacco) shall be prohibited from use at all Northwest Florida State College facilities, properties, and vehicles, owned or leased, regardless of location.

This policy shall apply to all students, faculty, staff and other persons on College property, regardless of the purpose for their visit. Further, no tobacco-related advertising or sponsorship shall be permitted on Northwest Florida State College property, at Northwest

Florida State College-sponsored events, or in publications produced by Northwest Florida State, with the exception of advertising in a newspaper or magazine that is not produced by Northwest Florida State College and which is sold, brought, or distributed on Northwest Florida State College property.

Parking Regulations

All vehicle operators are responsible for complying with Northwest Florida State College's parking regulations whenever they bring a vehicle on campus. Vehicles parked on any of the Northwest Florida State College's locations must display a valid parking permit or temporary parking permit. The College cannot assume responsibility for vehicle contents while on NWF State College premises. Driving on campus is a privilege. The College has the right to revoke privileges of operating a vehicle on campus.

Parking Permits

Parking permits are available online and at all NWF State College locations. Visit Parking Services for more information on acquiring a parking permit.

Designated Parking Areas

White Lines	Student Parking
Yellow Lines	Faculty/Staff Parking
Blue Lines	Disabled Person Parking
Green Lines	Visitor Parking

Parking Violations

Violation	Fee
PARKED ACROSS PARKING LINES	\$25
Vehicle tire parked on or over the parking line in a manner that impedes parking in adjacent space.	
PARKED IN NO PARKING ZONE	\$25
PARKED IN AREA NOT DESIGNATED FOR PARKING	\$25
Parked in a loading or unloading zone not designated for parking.	
PARKED ON WALKS OR GROUNDS	\$25
PARKED IN DESIGNATED SPACE	\$25
Vehicle parked in Faculty/Staff parking without proper permit. A non-visitor parked in visitor parking.	
PARKED IN DISABLED PARKING (+Tow Away Infraction)	
It is unlawful for any person to stop, stand, or park a vehicle within, or to obstruct, any such specially designated and marked parking space provided in accordance with s. 553.5041, unless the vehicle displays a disabled parking permit issued under s. 316.1958 or s. 320.0848 or a license plate issued under s. 320.084, s. 320.0842, s. 320.0843, or s. 320.0845, and the vehicle is transporting the person to whom the displayed permit is issued. Vehicle will be towed at owner's expense.	\$25
DOUBLE PARKED	\$25
Vehicle is parked alongside another vehicle already parked at a curb.	
OBSTRUCTING DRIVE, FIRE HYDRANT/LANE (+Immobilization)	\$50

OBSTRUCTING OTHER VEHICLES (+Immobilization)	\$50
NO VALID PERMIT DISPLAYED	
Vehicles are required to display a valid permit or decal on the rear view mirror or driver side dash. Permit information must be visible from outside of the vehicle. Decals should be displayed on the front fork of the motorcycle.	\$25
IMMOBILIZATION	
Vehicle has outstanding citation fees from various violation(s) previously issued. Pay outstanding fees and immobilization fee to have boot removed.	\$25
PERMIT NOT REGISTERED TO VEHICLE	
Each vehicle being used with a permit must be registered with designated permit. Using permit with an unregistered vehicle is a violation.	\$25
FORGED PERMIT (+Immobilization)	\$50
Any vehicle displaying a forged parking permit (ie: photocopy, picture of, etc).	

The Student Traffic Court

The Student Traffic Court convenes, as needed, to adjudicate appeals of parking citations for students. After traffic court deliberation, results are emailed to your registered email with Permit Express. Visit the Parking Services site for more information on appealing citations.

Posting, Circulating and Exhibiting Printed and Filmed Information

Students are expected to use mature judgment and a sense of discretion in their selection, publication, display, presentation and circulation of any printed or filmed materials at any college location, and to realize that they must accept responsibility individually and collectively for the consequences of their choices on these matters. The appearance of the college name, seal or insignia on any material which is not published by the college is not authorized and does not imply college approval or endorsement of the contents.

Notices

Notices may be posted by students and recognized student organizations on appropriate bulletin boards. Notices and posters are not to be taped, glued, or pasted on painted or finished surfaces. All such posting must be cleared in advance by the Director of Raider Life at the Niceville Campus. College Center Directors may approve notices at their respective locations. The general distribution of notices is prohibited by anyone other than instructional and staff personnel in the performance of their duties or by recognized student organizations to advertise an approved event.

Student Publications

Student publications (which may include video media newscasts) are intended to foster an atmosphere of free and responsible discussion and intellectual exploration. They are a means of bringing student concerns to the attention of

faculty and staff members, and of formulating student opinion on various issues at the college and in the surrounding community.

The editorial freedom of student editors entails the corollary responsibility to be governed by the canons of responsible journalism, such as the avoidance of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo.

Student publications shall contain a statement to the effect that the opinions expressed therein are not necessarily those of the faculty, staff or student body of the college.

Student Fundraising

Fundraising activities by students and/or student organizations are permissible when the specific purpose is to support institutional scholarships, humanitarian/charitable efforts, or a recognized student organization's mission and goals. Students/Student Organizations must receive approval by completing the Activity Request Form located on the Raider Life website at least one month prior to the activity's scheduled date.

Policy Formulation

A student who wishes to suggest a change in any policy of the college should submit a written recommendation to the Student Senate for evaluation. If favorably received by the Senate, the proposal shall be submitted by the Student Senate to the appropriate standing committee/subcommittee of the college for consideration. Students serve on various college committees such as the Budget committee.

Student Rights and Responsibilities

The following rights and responsibilities are afforded and ascribed to all students, regardless of location or mode of delivery.

1. The right to be protected from discrimination and harassment
2. The right to the safety and security of one's own academic records
3. The right to be informed about completion, graduation, and transfer-out rates for all students, safety and policies and crime statistics.
4. The right to due process if found in violation of a college policy or procedure.
5. The responsibility to abide by the Student Code of Conduct

The right to be protected from discrimination and harassment

- The right to be protected against discrimination is covered in Board of Trustee Policy GP 6.00 and is considered "Prohibited Disruption of College Operations". The right to be protected from harassment is covered by Board of Trustee Policy HR 20.00. Violations of this right should be reported here: <https://www.nwfsc.edu/disputes>.

The Right to be Informed about Safety Procedures and Crime Statistics

- Crime statistics are published annually in the Student Handbook (see below).

The Right to the Safety and Security of One's Own Academic Record

- Information about the safety and security of one's own academic records, as well as complaint procedures, are published annually in the College Catalog and may be found here: <https://catalog.nwfsc.edu/content.php?catoid=21&navoid=5828>.

The Right to Due Process if Found in Violation of a College Policy or Procedure

- Due process procedures are published annually in the Student Handbook (see below).

The responsibility to abide by the Student Code of Conduct

- The Student Code of Conduct is published annually in the Student Handbook (see below).

Campus Security Policy

All criminal incidents can and should be reported to the NWF State College administrator in charge of a function, the campus receptionist, or an attending faculty or staff member. NWF State College will implement appropriate actions including, but not limited to, contacting the presiding law enforcement agency, any medical services needed or others as appropriate. Incident Forms are available online. All incidents must be communicated, in writing, as soon as possible.

Summary of Reported Crimes on Campus

Students may review the annual Safety and Fire Report [here](#).

A Student's Guide to Reporting Harassment

The purpose of this guide is to ensure an orderly resolution of charges of sexual, racial, or other forms of harassment brought by students at NWF State College. Sexual harassment and racial harassment have been held to constitute a form of discrimination prohibited by the Title VII of the Civil Rights Act of 1964, as amended and Title IX of the Education Amendments of 1972. Applicable law prohibits other types of harassment.

NWF State College upholds the Clery Act and Violence Against Women Reauthorization Act of 2013.

NWF State College prohibits all acts of harassment and will properly investigate any claims of harassment.

Sexual and Other Unlawful Harassment

NWF State College is committed to providing an educational and work environment that is free from all forms of discrimination and harassment. NWF State College expressly prohibits any form of unlawful discrimination or harassment based on race, color, gender, religion, national origin, age, ethnicity, marital status, or disability or genetic information. NWF State College provides ongoing harassment training to ensure everyone the opportunity to work and/or learn in an environment free of sexual and other unlawful harassment.

Definitions of Harassment

Sexual harassment is defined as unwanted sexual advances, including visual, verbal, or physical conduct of a sexual nature. This definition includes gender-based harassment of a person of the same sex as the harasser. Examples of conduct expressly prohibited by the policy include, but are not limited to, the following:

- Making unwanted sexual advances.
- Offering employment benefits in exchange for sexual favors.
- Making or threatening reprisals after a negative response to sexual advances.
- Leering, making sexual gestures, or displaying of sexually suggestive objects, pictures, cartoons, or posters.
- Making or using derogatory comments, epithets, slurs, or jokes.
- Making verbal commentaries about an individual's body.
- Using sexually degrading words used to describe an individual.
- Sending suggestive or obscene letters, notes, communications or invitations.
- Touching, assaulting, impeding or blocking movements or violating someone's "personal space."
- Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute harassment when: (1) submission to such conduct is made either explicitly or implicitly a

term or condition of employment or reward; (2) submission to or rejection of the conduct is used as a basis for making educational, academic, or employment decisions; or, (3) the conduct has the purpose or effect of interfering with educational, academic, or employment performance or creating an intimidating, hostile, or offensive educational, academic, or employment environment.

Responsibilities

All College employees and students are responsible for creating an atmosphere free of discrimination or harassment, sexual or otherwise. Further, all College employees and students are responsible for respecting the rights of all members of the College community. Any student who experiences or witnesses any sexual or other unlawful harassment or discrimination in the College environment should promptly report the behavior to the Executive Director of Human Resources or the Vice President of Student Success. Reports should be made, in writing, within sixty working days of the incident. This policy applies to all incidents of alleged discrimination or harassment, including those occurring off-campus or during off-hours, when the alleged offender has a relationship with the College.

Investigation

All allegations of sexual or other harassment will be quickly and discreetly investigated and kept confidential to the maximum extent possible. All students have a duty to cooperate fully with the College in connection with any such investigation. If NWF State College determines that an employee or student is guilty of discriminating against or harassing another individual, appropriate disciplinary action will be taken against the offending employee or student, up to and including termination of employment, suspension, or expulsion.

Retaliation

NWF State College prohibits any form of retaliation against any student or employee for filing a bona fide complaint under this policy or for assisting in a complaint investigation. However, if after investigating any complaint of harassment or unlawful discrimination, the College determines that the complaint is not bona fide and was not made in good faith or that a student has provided false information regarding the complaint, disciplinary action may be taken against the individual who filed the complaint or gave false information.

Office of the Student Ombudsman

Per Florida Statute 1006.51, NWF State College provides a Student Ombudsman with whom students may confidentially discuss complaints, concerns, or problems to reach an informal consensus before proceeding with official college processes. The Director of Raider Life on the Niceville Campus will serve as the Student Ombudsman and may be contacted at 850-729-5277 or ombudsman@nwfsc.edu.

Due Process Procedures

Due process procedures are outlined for both disciplinary offenses and student-initiated grievances. Procedures for both disciplinary violations and grievances include the informal resolution procedure and the formal resolution procedure.

Student Complaint and Grievance Procedures

Definitions

An informal complaint or formal grievance is a dispute against any employee or department of the College who has:

1. Violated a written College policy or procedure
2. Not properly followed the College's published policies, regulations, rules, or procedures.

Due Process for Informal Resolution of Complaints

A student who has a complaint against an employee or department of the College should attempt to resolve the matter informally. Outlined below are the procedures for informally resolving a complaint. The Director of Student Development and Campus Engagement may act as the Student Ombudsman and assist in the resolution of informal complaints. *Deans and Vice Presidents cannot be involved in resolution of informal complaints.*

- *Academic (informal)*
 1. Academic complaints are any dispute (meeting the definition above) with an instructor or department related to in-class activity.
 2. As part of the informal process, students must first attempt to resolve the dispute directly with the instructor.
- *Non-Academic (informal)*
 1. Non-academic complaints are any dispute (meeting the definition above) with a college employee or department related to non-class activity.
 2. As part of the informal process, students must first attempt to resolve the issue directly with the employee.

Due Process for Resolution of Formal Grievances

Limit of Scope

A formal grievance cannot be used:

1. As a resolution of matters student-to-student.
2. To challenge the legitimacy of existing policies, regulations, rules, or procedures.
3. Against any non-employee of the College.

Formal Resolution of Grievances (Step 1)

A student who has a formal grievance against an employee or department of the College who has attempted to satisfactorily resolve the matter informally (as outlined above) may file a formal grievance. Outlined below are the procedures for resolving a formal grievance.

1. The student will submit their Step I Grievance through an electronic form available on the website.
2. The student must explain, within 30 days of the last contact with the individual in the informal complaint, the circumstances pertaining to the situation.
3. The student must identify the policies that have been violated or not properly followed.
4. The student must identify what action would be a satisfactory resolution to the situation.

Formal grievance Investigation Procedure (Step 1)

Academic	Non-Academic
The instructor's Program Director or Program Chair (hereafter "the administrator") will investigate.	The employee's Director or Executive Director (hereafter "the administrator") will investigate.
• The administrator may, for safety reasons, issue temporary sanctions or accommodations, as appropriate, during the investigation. • The administrator will meet with the appropriate parties to collect the facts of incident. • Once all known facts of the incident have been collected, the administrator will consider the details and render a decision. All decisions will be based on a "beyond a reasonable doubt" standard. • The administrator will notify the individual(s) of the decision. If the individual is found "responsible" for the incident sanctions will be applied. • A response with a decision to the student through email within 10 business days of submission.	

Formal Resolution of Grievances (Step 2)

- A Step 2 Grievance must be filed within 10 calendar days of the issuance of the Step 1 finding.
- The student will submit their Step 2 Grievance through an electronic form available on the website.
- During the appeal process the sanctions issued in Step 1 will stand.
- A Step 2 Grievance may be filed if the individual filing the Grievance believes there was an error or omission of fact or law considered by the administrator in Step 1.
- The individual filing the Grievance must identify the following points in their submission:
 - Why the outcome issued by the administrator is factually flawed or contrary to federal law, state law or college policy or practice.
 - Desired outcome of the Grievance.

Formal grievance Investigation Procedure (Step 2)

Academic	Non-Academic
The Program Director or Program Chair's Dean (hereafter "the administrator") will investigate.	A Director or Executive Director not supervising the involved parties (hereafter "the administrator") will investigate.
• The administrator will review all materials collected in the Step 1 Grievance. • The administrator will make a determination as to whether the outcome issued by the administrator in Step 1 was factually flawed or contrary to federal law, state law or college policy or practice. • The administrator may convene a panel to assist with the investigation of the Grievance (as needed). • The administrator may call on the individual filing the Grievance, witnesses, or any other appropriate party to resolve the Grievance. • A response with a decision to the student through email within 10 business days of submission. ○ If additional information is requested by the administrator and not received within 10 business days, the finding of the Step 1 Grievance will be upheld. ○ If the administrator determines the Step 1 Grievance findings were incorrect, all sanctions will be reversed and the student's written, desired outcome will be met.	

Formal Resolution of Grievances (Step 3)

- A Step 3 Grievance must be filed within 10 calendar days of the issuance of the Step 2 finding.
- The student will submit their Step 2 Grievance through an electronic form available on the website.
- During the appeal process the sanctions issued in Step 1 will stand.
- A Step 3 Grievance may be filed if the individual filing the Grievance believes there was an error or omission of fact or law considered by the administrator in Step 1.
- The individual filing the Grievance must identify the following points in their submission:
 - Why the outcome issued by the administrator is factually flawed or contrary to federal law, state law or college policy or practice.
 - Desired outcome of the Grievance.

Formal grievance Investigation Procedure (Step 3)

Academic	Non-Academic
The Vice President, Academic Affairs will be the sole arbiter.	The Vice President, Student Success will be the sole arbiter.

- The Vice President will review all materials collected in the Step 1 and Step 2 Grievances.
- The Vice President will make a determination as to whether the outcome issued by the administrator in Step 2 was factually flawed or contrary to federal law, state law or college policy or practice.
- The Vice President may convene a panel to assist with the investigation of the Grievance (as needed).
- The Vice President may call on the individual filing the Grievance, witnesses, or any other appropriate party to resolve the Grievance.
- A response with a decision to the student through email within 10 business days of submission.
 - If additional information is requested by the administrator and not received within 10 business days, the finding of the Step 2 Grievance will be upheld.
 - If the Vice President determines the Step 2 Grievance findings were incorrect, all sanctions will be reversed and the student's written, desired outcome will be met.
- The Step 3 Grievance is the final step in the college's Grievance process.

Student Code of Conduct

College students are citizens of the local, state, and national governments and of the academic community and are therefore expected to conduct themselves as law abiding members of each community at all times. Admission to the College carries with it special privileges and imparts special responsibilities apart from those rights and duties enjoyed by non-students. In recognition of the special relationship that exists between the College and the community it seeks to serve, the Northwest Florida State College Board of Trustees has authorized the President of the College to take such action that may be necessary to maintain campus safety and preserve the integrity of the College and its educational environment.

Pursuant to this authorization, the College has developed the following regulations, which are intended to govern student conduct on the campus. The College may enforce its own regulations regardless of any proceedings instituted by other authorities. Conversely, violation of any section of these regulations may subject a student to disciplinary measures by the College whether or not such conduct is simultaneously in violation of local, state, or national laws. When a student fails to abide by the rules and regulations of the College or fails to obey the ordinance of local, state, and national governments, disciplinary action may be taken.

Student Disciplinary Offenses

For the purpose of these regulations, a "student" shall mean any person who is registered for study at the College for any academic period. Generally, through appropriate due process procedures, College disciplinary measures shall be imposed for conduct which adversely affects the College's pursuit of its educational objectives, which violates or shows a disregard for the rights of other members of the academic community, or which endangers property or person at the College or on any College controlled property.

All police officers have been given the authority to control access and to patrol facilities. Failure to leave after instruction to do so can result in trespassing charges. Individual, group, or organizational misconduct, which is subject to disciplinary sanctions, shall include but not be limited to the following offenses:

Academic Offenses

- **Academic dishonesty:** Students are expected to conduct themselves as responsible members of the academic community and to be honest and forthright in their academic endeavors. Academic dishonesty may include but is not limited to:
 - **Cheating:** During any academic evaluation activity, the use or attempted use of unauthorized materials, information, notes, study aids or other devices, information from another student or

student's paper. During any academic evaluation activity, engaging in unauthorized communication of information, including collaborating, contrary to the requirements of a course.

- **Plagiarism:** Presenting work in part or whole of another as one's own without proper acknowledgment of the source or sources. The sole exception to the requirement of acknowledging sources occurs when ideas or information are common knowledge.

Non-Academic Offenses

- **Aiding and abetting the commission of offenses:** Any attempt to commit any of the foregoing offenses or the aiding and abetting of the commission of any of the foregoing offenses (an "attempt" to commit an offense is defined as the intention to commit an offense coupled with the taking of some action toward its commission).
- **Alcoholic beverages:** The unauthorized use and or possession of alcoholic beverages on the College campus, or at any College sponsored event, except College events where alcoholic beverages are provided by the College.
- **Bullying:** Systematically and chronically inflicting physical hurt or psychological distress on one or more students. Bullying is further defined as unwanted and repeated written, verbal, or physical behavior, including any threatening, insulting or dehumanizing gesture by a student that is severe or pervasive enough to create an intimidating, hostile, or offensive educational environment, cause discomfort or humiliation, or unreasonably interfere with an individual's educational experience.
 - **Bullying includes:** Teasing; social exclusion; threat; intimidation; stalking; physical violence; theft; sexual, religious or racial harassment; public or private humiliation; and/or destruction of property.
 - **Cyberbullying:** Bullying, through the use of technology or any electronic communication, includes, but is not limited to, transfer of signs, signals, writing, images, sounds, data or intelligence of any nature transmitted in photo-optical systems, email, internet, webpages, instant messages, facsimile, social networking and/or phone. Bullying is created by the transmission of electronic content which is communicated and posted to more than one person that interferes with the orderly operation of the educational environment.
- **Classroom misconduct:** Classroom misconduct includes direct or indirect disruptive, threatening, or otherwise unacceptable social behavior in the classroom. Engaging in or assisting with such activity is prohibited. The instructor has the primary responsibility for control over classroom behavior and maintenance of academic integrity and can order any student engaged in disruptive conduct or conduct that violates the general rules and regulations of the College to be temporarily removed or expelled from the classroom.
- **Dangerous conduct:** Any conduct that constitutes a serious danger to any person's health, safety, or personal well-being, including any physical or immediate threat to others.
- **Dating violence, domestic violence, sexual assault, or stalking:** A type of abuse or violence where there is a pattern of controlling behaviors that one person is used to establish power over an intimate partner in order to control actions and activities. One can experience trauma where abusive relationships can increase in danger, or dangerous situations where students would not feel safe or secure. Actions include disrespectful and hurtful behaviors that one intimate partner may use against another partner, causing a partner physical harm, stalking, threatening, isolating, gesturing and/or demanding unwanted sex practices.
- **Disorderly conduct or language:** Any individual or group behavior or language which is abusive, obscene, lewd, indecent, violent, excessively noisy, disorderly, or which unreasonably disturbs other groups or individuals.
- **Drugs:** The unlawful possession or use of any drug or controlled substance, including any stimulant, depressant, narcotic, hallucinogenic drug or substance, marijuana, or sale or distribution of any such drug or controlled substance on college owned or controlled property or at any college sponsored activity.
- **Explosives, fireworks, and flammable materials:** The unauthorized possession, ignition, or detonation of any object or article, that would cause damage by fire or other means to persons or property.
- **Failure to cooperate with College officials:** Failure to comply with directions of College officials acting in the performance of their duties.

- **Financial misconduct:** Conduct, including but not limited to, knowingly passing forms of payment such as a worthless check, debit, credit card, or money order in payment to the College community.
- **Firearms/Weapons:** Possession, other than legally and securely stored in your vehicle, or use of firearms or other dangerous weapons at any college location or activity except by authorized law enforcement officers in the performance of their duties is prohibited behavior and will subject the offender to disciplinary procedures as well as as appropriate action by civil authorities.
- **Gambling:** Gambling in any form.
- **Harassment:** Any act of harassment by an individual or group against a student, college employee, campus group, visitor, or guest. Harassment shall include, but not be limited to, insults, heckling, verbal abuse, threats of physical abuse, unwanted suggestions of a sexual nature, repeated teasing or annoyance of another, or other actions intended to disturb others.
- **Hazing:** Hazing is any intentional or reckless act, on or off the property of the College, by students acting alone, or with others, involving any action which is directed against any other students that endangers the mental or physical health or safety of that student, or which induces or coerces a student to endanger such student's mental or physical health or safety. For the purpose of this statement, hazing is defined as those actions taken and situations created in connection with initiation into or affiliation with any organization.
- **Inappropriate dress:** College students are mature enough to make wise and appropriate decisions on the type of apparel suitable for a college campus. Attire that disrupts the learning process is not allowed. Dress that includes any words or images that are obscene, offensive, or tend to promote violence, drugs or disrespect is prohibited.
- **Misuse of documents or identification cards:** Any forgery, alteration of, or unauthorized use of College documents, forms, records, or identification cards including information collected in connection with a student's admission, enrollment, financial transactions, or status in the College.
- **Obstruction of or interference with College activities or facilities:** Any intentional interference with or obstruction of any College activity, program, event, or facilities including the following:
 - Unauthorized occupancy of the College, College controlled facilities, or blockage of access to or from such facilities.
 - Interference with the right of way of any college member or other authorized person to gain access to the College or College controlled activity, program, event, or facilities.
 - Obstruction or delay of a campus security officer, fire/rescue service, or any College official in the performance of his/her duty.
 - Acts of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property belonging to the College including but not limited to: fire alarms, fire equipment, elevators, telephones, College keys, library materials, and/or safety devices; and any such act against a member of the College community or a guest of the College.
- **Theft:** Unauthorized possession or sale of College property
- **Unacceptable conduct at a College hearing:** Any conduct at any College hearing involving contemptuous, disrespectful, or disorderly behavior or false testimony or other evidence at any hearing.
- **Violations of general rules and regulations:** Any violation of the general rules and regulations of the College as published in an official College publication, including the intentional failure to perform any required action or the intentional performance of any prohibited action.
- **Violations of state or federal laws:** Any violation of state or federal laws or regulations proscribing conduct or establishing offenses.

Due Process for Disciplinary Offenses

Conference: The Vice President of Student Success (non-academic offenses) Vice President of Academic Affairs (academic offenses) or designee, hereafter referred to as the "Administrator", shall request a meeting with the student for a preliminary conference where the student shall be apprised of his/her basic rights and made aware of the student due process procedures.

The student will be extended the opportunity to explain the conduct in question and provide the Administrator with a detailed written explanation. Failure of the student to meet with the Administrator within 10 days of the request for a meeting will not prevent the process of collecting information or the decision to move forward.

Investigation: The Administrator shall consider all evidence, determine the facts, render a decision, and impose disciplinary sanction(s) as necessary.

Sanctions: The Administrator will, in writing, identify the claimed misconduct, infraction or offense and present a statement of the full penalty or sanction, in addition to a statement of the student's right to due process. The student shall be provided this information either in person or by college email and registered mail.

Disciplinary Sanctions

Upon determination that a student or organization has violated any of the rules, regulations, or disciplinary offenses set forth in College policy, the Administrator may impose the following disciplinary sanctions either singly or in combination.

- **Warning:** The appropriate College officials may notify the student that continuation or repetition of specified conduct may be cause for other disciplinary action.
- **Reprimand:** A written reprimand or censure may be given any student or organization whose conduct violates any part of these regulations. Such a reprimand does not restrict the student in any way, but does have important consequences. It signifies that he or she is in effect being given another chance to conduct himself or herself as a proper member of the College community and that any further violation may result in more serious penalties.
- **Restitution:** A student who has committed an offense against property may be required to reimburse the College or other owner for damage to or misappropriation of such property. Any such payment in restitution shall be limited to cost of repair or placement.
- **Restrictions:** Restrictions upon a student or organization's privileges for a period of time may be imposed. These restrictions may include, for example, denial of the right to represent the College in any way, denial of use of facilities, parking privileges, participation in extracurricular activities, or restriction of organizational privileges.
- **Disciplinary Probation:** Continued enrollment of a student on probation may be conditioned upon or adherence to these regulations. Any student placed on probation will be notified of such in writing and will also be notified of the terms and length of probation. Probation may include restrictions upon the extracurricular activities of a student. Any conduct in violation of these regulations while on probationary status may result in the imposition of a more serious disciplinary action.
- **Suspension:** If a student is suspended, he or she is separated from the College for a stated period of time with conditions of readmission to the College. Student must appeal for reinstatement.
- **Expulsion:** Permanent removal and exclusion from the College, College controlled facilities, programs, events, and activities.
- **Dismissal:** The dismissal of a student whose character and behavior prove unsatisfactory for a period up to two years.

Some disciplinary actions must adhere to additional state, federal, or organizational and accrediting agency guidelines and regulations. Immediate sanctions, up to and including expulsion, or dismissal may be necessary in some cases to guarantee the safety and harmony of the college environment. To provide and protect a safe learning environment, the College reserves the right to invoke immediate sanctions based upon the nature and seriousness of the offense. At this point, the student is able to request a final appeal to the President.

Students wishing to appeal any sanction should follow the Grievance Procedures, noted above.

All Programs

Active Programs 2019-08-01

AA - Associate in Arts General Degree

Admission Program Objective Code AAGD
State CIP Code 1192401010

The AA is primarily intended as a transfer degree for students continuing to a 4 year bachelor's program at a university or state college. The AA Transfer Programs indicate the required courses needed to be eligible to be admitted to the university program at the institutions listed.

Associate in Arts students must complete 60 college credits to complete the degree; 36 of these credits must be general education credits distributed across five subject area categories. A student must satisfy the required number of credits in each category. The remaining 24 elective credits should be selected in consultation with an advisor, who will assist with selecting the college credits most advantageous to the student's educational goals.

General Education

In consultation with an advisor, choose appropriate General Education courses that fulfill your AA Degree Concentration for University Transfer Major. Select courses from each area as listed below; see the AA Degree General Education Requirements section of catalog for specific course listings:

- _____ - Communication Skills **3 Credit Hours**
- _____ - Communication Skills **3 Credit Hours**
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- _____ - Core Mathematics **3 Credit Hours**
- _____ - General or Core Mathematics **3 Credit Hours**
- _____ - Biological Sciences **3 Credit Hours****
- _____ - Physical Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours*****
- _____ - History/Government Social Sciences **3 Credit Hours*****
- _____ - Additional General Education Credits **6 Credit Hours**

****** One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

******* One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits Required: 36

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

AA Elective Requirements

In consultation with an advisor, select appropriate AA degree college credit electives that fulfill your AA Degree Concentration for University Transfer Major:

- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**
- ____ - ____ - Elective **3 Credit Hours**

Total Elective Credits Required: 24

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

AA General Degree (AA) (AAGD)
First Year
Fall Semester Core Mathematics - 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Core Humanities - 3 Credit Hours Elective - 3 Credit Hours Elective - 3 Credit Hours Total Semester Hours: 15
Spring Semester Core or General Mathematics - 3 Credit Hours ENC 1102 - English Composition II 3 Credit Hours ¶

Core or General Humanities - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

Biological Science* - **3 Credit Hours**

Behavioral Social Science** - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

Physical Science* - **3 Credit Hours**

History/Government Social Science** - **3 Credit Hours**

Elective or Additional General Education Hours*** - **3 Credit Hours**

Elective or Additional General Education Hours*** - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

* At least one Science course must come from the core.

** At least one Social Science course must come from the core.

*** Students who have already satisfied the 36 hour General Education requirement may take a general Elective.

AA Degree Checklist:

- Have you completed a minimum of 60 credit hours in the following areas?
 - 36 Hours of General Education
 - 6 hours in Communications ("C" or better)
 - 6 hours in Mathematics ("C" or better)
 - 6 hours in Humanities ("C" or better)

- 8 hours in Natural Science
- 6 hours in Social Sciences ("C" or better in History/Government Social Science category)
- 4 hours in Additional General Education Credits (if needed)
- 24 hours of college credit A.A. transferable electives
- Have you completed at least 15 of the 60 credits at NWF State College?
- Have you completed the foreign language requirement?
- Have you met the minimum 2.0 GPA requirements for the A.A.?
- Have you met the Civic Literacy Competency requirement for the A.A.?

AA Degree General Education Requirements

Associate in Arts students must complete 60 college credits to complete the degree; 36 of these credits must be general education credits distributed across five subject area categories. A student must satisfy the required number of credits in each category. The remaining 24 elective credits should be selected in consultation with an advisor, who will assist with selecting the college credits most advantageous to the student's educational goals.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social Sciences. Beginning with students initially entering a Florida College System institution or state university in 2015-2016 and thereafter, each student must complete at least one identified core course (designated with ♦) in each area of study as part of the general education course requirements. Furthermore, NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA and AS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

AA General Education Requirements

Communications: 6

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

A minimum grade of "C" in each Communications course is required for general education credit.

ENC 1101 - English Composition I

**3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)**

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ◆ **Core General Education**
- ▲ **Technology-Across-the Curriculum**
- ¶ **Writing requirements**

Humanities: 6

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

A minimum grade of "C" in each Humanities course is required for general education credit.

- Choose one Core Humanities course and one General Humanities course, or
- Choose two Core Humanities courses.

Core Humanities

ARH 1000 - Art Appreciation

3 Credit Hours ◆ † ◆ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ❖ † ◆ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ◆ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ◆ † ◆ ¶

(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ◆ ¶

(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ◆ **Core General Education**
- † **Speaking-Across-the Curriculum**
- ❖ **International and/or diversity focus**
- ¶ **Writing requirements**

General Humanities

AML 2010 - American Literature: 1492 - 1865

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from the pre-Colonial period to the Civil War. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AML 2020 - American Literature: 1865 - Present

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from Civil War to present. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: AML 2010 is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ◆ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ❖ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2060 - Architecture History

3 Credit Hours ❖ † ¶
(Fall, Spring)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2402 - Art History: Modern Art

3 Credit Hours ❖ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2250 - Humanities – A Contemporary Perspective

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2700 - Humanities – Foreign Study

3 Credit Hours ♦ ¶
(Offered as needed)

A variable humanities content course designed to allow students first-hand learning experiences outside the United States. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶

(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2100 - World Literature: Antiquity through the Renaissance

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from antiquity through the Renaissance, that reflect cultural and intellectual heritage. May be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet the Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2120 - World Literature: Renaissance through the Present

3 Credit Hours ♦ ¶

(Offered, Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from the Renaissance to the present, that reflect cultural and intellectual heritage. May be used as a humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: LIT 2100 is not a prerequisite for this course)

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2600 - Introduction to Ethics

3 Credit Hours ❖ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

REL 2300 - Introduction to World Religions

3 Credit Hours ❖ ¶
(Fall, Spring, Summer)

This course will explore the principles and practices of the world's major religious traditions. The religions will be studied in their historical and contemporary forms. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2071 - Humanities – Cinema Appreciation

3 Credit Hours † ¶
(Fall, Spring, Summer)

An introduction to the origin, development, cultural aspects and analysis of cinema topics. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2300 - Dramatic Literature

3 Credit Hours † ¶
(Fall, Spring)

Survey of dramatic works from the Greeks to the 20th century, with emphasis on the plays of the 19th and 20th centuries; intensive investigation and script analysis with reports, lectures and discussions. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

† **Speaking-Across-the Curriculum**
❖ **International and/or diversity focus**
¶ **Writing requirements**

Mathematics: 6

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

All Mathematics courses listed below meet Mathematics requirements outlined in FAC Rule 6A-10.030.

A minimum grade of "C" in each Mathematics course is required for general education credit.

- Choose one Core Mathematics course and one General Mathematics course, or
- Choose two Core Mathematics courses.

(Any student who successfully completes a Mathematics course for which one of the general education core

course options in Mathematics is an immediate prerequisite shall be considered to have completed the Mathematics core.)

Core Mathematics

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR

(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):

Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 123 or higher on the math section of the PERT OR
- (2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
- (3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ Core General Education

General Mathematics

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of

"C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and

planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours (Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAS 2103 - Linear Algebra

3 Credit Hours (Offered as needed)

This is an introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. This course includes the study of matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors. Exercises using MATLAB will be required. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better, or equivalent.

MTG 2206 - College Geometry

3 Credit Hours (Spring)

This course emphasizes Euclidean geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve the following: line segments, angles, triangles, polygons, parallel

and perpendicular lines, slopes of lines, circles, and similarity. Trigonometry is presented in terms of right triangle relationships. Logic is the basis for deductive reasoning in proofs of theorems. Lines and other geometric figures are graphed in the rectangular coordinate system. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 or equivalent with a "C" or better.

STA 2122 - Statistical Applications

4 Credit Hours (Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

Natural Sciences: 6

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

- Choose one Biological Science course and one Physical Science course.
At least one course must be a Core Natural Science course indicated by the ♦ symbol.

(Any student who successfully completes a Science course for which one of the general education core course options in Science is an immediate prerequisite shall be considered to have completed the Science core.)

Biological Sciences

BOT 1010C - Botany

4 Credit Hours (Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1005 - General Biology

3 Credit Hours ♦ (Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

♦ Core General Education

Physical Sciences

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AST 1005 - Introduction to Astrobiology

3 Credit Hours
(Spring)

This course will explore the scientific evidence for the possibility, probability, and potential nature of life that might exist beyond the Earth. Contemporary discoveries about current and past conditions suitable for the origin of life on Mars and some of the moons orbiting other planets in our own solar system are reviewed in the context of what we understand about life on Earth. The question of life in other solar systems is also covered. Space travel and problems regarding intelligent extra-terrestrial beings visiting the Earth and intelligent life beyond the Earth but still within our own solar system are also discussed. All this is done in a fashion which integrates the various branches of science required to understand life beyond the Earth: Astronomy, Biology, Chemistry, Geology, and Physics. There are no prerequisites for this course and it may be taught in a team fashion by faculty members from various scientific disciplines.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

ISC 1003 - Natural Disasters – Causes, Consequences, Human Response

3 Credit Hours
(Fall, Spring, Summer)

This interdisciplinary course investigates natural catastrophic events, such as earthquakes, volcanic eruptions,

tsunamis, hurricanes and floods. This class will use an environmental studies approach to examine how modern society exacerbates the damage caused by these natural phenomena and methods to mitigate human suffering. The student will gain an appreciation of humankind's relationship to the natural environment.

MET 1010C - Introduction to Meteorology

4 Credit Hours
(Fall, Spring, Summer)

Structure of the atmosphere; weather processes, systems and phenomena; climate and climatic change, economic impact of weather. May be used to satisfy the AA degree Physical Science requirement for career goals other than sciences, engineering and pre-professional fields.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

OCE 1013C - Aquatic Environmental Science

4 Credit Hours
(Offered as needed)

This course will investigate living and non-living components of aquatic ecosystems. Students will learn how aquatic ecosystems function naturally as well as how human activity can alter these ecosystems. The course is built around field trip(s) and lab work during which students will obtain water quality data from a local aquatic environment. Through field trip(s) and lab work, students will gain appreciation for the local relevance of course material. For both majors and non-majors, a key outcome of such experiences will be gaining experience in using inquiry and reasoning through the scientific method and becoming comfortable with data, technology, and instrumentation. Problem-solving, interpretation of data, and class discussions will be key.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

**4 Credit Hours
(Spring)**

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

**4 Credit Hours
(Spring, Summer)**

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

♦ Core General Education

Social Sciences: 6

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

- Choose one Behavioral Social Science course and one History/Government Social Science.
At least one course must be a Core Social Science course indicated by the ♦ symbol, or
- Choose two History/Government Social Sciences courses.
At least one course must be a Core Social Science course indicated by the ♦ symbol.

Behavioral Social Sciences

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ANT 2100 - Introduction to Archaeology

3 Credit Hours ♦
(Offered as Needed)

Introduction to the fundamental principles, methods, and theories in archaeology. Includes a history of the development of archaeology, and examination of the nature of archaeological data and research, an introduction to archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but non-western examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ **Core General Education**

❖ **International and/or diversity focus**

History/Government Social Sciences

A minimum grade of "C" in each History/Government Social Science course is required for general education credit.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1012 - World Civilization: Early Humans through Global Expansion

3 Credit Hours ♦ ¶
(Offered Fall, Spring, Summer)

A study of world history from 4000 BC to 1650 AD as it relates to the development of western civilization. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communication/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present

3 Credit Hours ❖ ¶

(Offered Fall, Spring, Summer)

A study of history from 1650 AD to the present as it relates to the development of the modern world. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

❖ **Core General Education**

❖ **International and/or diversity focus**

¶ **Writing requirements**

Additional General Education Credits: 6

Additional General Education Credits should be selected in alignment with a student's choice of transfer major. Any general education hours over a total of 36 will apply as electives in the AA degree. Consult with an academic advisor for assistance.

ASL 1140 - American Sign Language I

4 Credit Hours ❖

(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve,

evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- ____ - Any A.A. General Education Communications, Mathematics, Humanities, Natural Science, or Social Science course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ❖ **International and/or diversity focus**

Total AA General Education Credits Required: 36

Footnote Legend

Symbol	Description
♦	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.
▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.
†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
Ω	Courses listed with this symbol have a Civic Literacy Competency.

AA Degree Checklist:

- Have you completed a minimum of 60 credit hours in the following areas?
 - 36 Hours of General Education
 - 6 hours in Communications ("C" or better)
 - 6 hours in Mathematics ("C" or better)
 - 6 hours in Humanities ("C" or better)
 - 6 hours in Natural Science
 - 6 hours in Social Sciences ("C" or better in History/Government Social Science category)
 - 6 hours in Additional General Education Credits (if needed)
 - 24 hours of college credit A.A. transferable electives
- Have you completed at least 15 of the 60 credits at NWF State College?
- Have you completed the foreign language requirement?
- Have you met the minimum 2.0 GPA requirements for the A.A.?
- Have you met the Civic Literacy Competency (FAC Rule 6A-10.02413) requirement for the A.A.?

AA Transfer Major: Accounting

Admission Program Objective Code: ACCO

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, IRSC, UCF, UF*, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520301

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the

economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

**3 Credit Hours
(Fall, Spring)**

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Actuarial Science

Admission Program Objective Code: ACTU
State CIP Code: 1192401010

Offered at FSU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521304
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours

(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Advertising

Admission Program Objective Code: ADVE

State CIP Code: 1192401010

Offered at UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090903

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †

(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Aerospace Engineering

Admission Program Objective Code: AERO
State CIP Code: 1192401010

Offered at UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: African-American (Black) Studies

Admission Program Objective Code: AFRI
State CIP Code: 1192401010

Offered at FAMU, FSU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Agricultural (Food & Resource) Economics

Admission Program Objective Code: AGRI

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 010103

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Agricultural Engineering

Admission Program Objective Code: AGRE
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ENC 1101 - English Composition I

3 Credit Hours ◆ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 2311 - Calculus I

4 Credit Hours ◆
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Agricultural Teacher Education (Vocational)

Admission Program Objective Code: AGTE
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Agriculture Science

Admission Program Objective Code: AGRS
State CIP Code: 1192401010

Offered at UFAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 010000
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and

incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲

(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours

(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: American Studies (USA)

Admission Program Objective Code: AMER
State CIP Code: 1192401010

Offered at FSU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050102

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Anthropology

Admission Program Objective Code: ANTH

State CIP Code: 1192401010

Offered at FAU, FSU, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450201

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Classes

- ANTXXXX - Any course with ANT prefix
- ANTXXXX - Any course with ANT prefix

AA Transfer Major: Applied Physiology and Kinesiology

Admission Program Objective Code: APPK

State CIP Code: 1192401010

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Offered at FSU, UF

Transfer Program CIP code: 260908

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Applied Science

Admission Program Objective Code: APPL

State CIP Code: 1192401010

Offered at FGCU, UCF, USF, USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240102

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Majors Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Architecture - FAMU/NWF Pre-Articulation Agreement

Admission Program Objective Code FAMU

State CIP Code 1192401010

Articulation Agreement with the Florida A&M University (FAMU) School of Architecture:

An articulation agreement between NWF State College and Florida A&M University (FAMU) School of Architecture allows students to earn an Associate in Arts (A.A.) degree that could qualify them for entrance to the upper-division of the Bachelor of Science in Architectural Studies degree program at FAMU. It is highly recommended that, in addition to the common prerequisites listed below, students should consult the current catalog from FAMU. Some SUS programs have restricted access or are considered Limited Access programs. Students are responsible for completing the specific requirements for admissions. For more information on the FAMU A.A. to B.S. articulation, contact Mr. Ray Rickman at 729-5218 or rickmanr@nwfsc.edu.

Associate in Arts Degree/Pre-Architecture FAMU Prerequisites

Please consult the Course Description section of the catalog for the required prerequisites of all courses needed to satisfy the requirements of this program. Students must meet NWFSC A.A. degree graduation requirements.

General Education

Undesignated courses are to be selected from the General Education Requirements listed in the AA Degree General Education Requirements section of catalog for specific courses.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is

a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

Total General Education Credits Required: 36

Program Electives

ARC 1131 - Architectural Presentation

3 Credit Hours
(Summer)

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C - Design 1.1

4 Credit Hours
(Fall)

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of

systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C - Design 1.2

4 Credit Hours (Spring)

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 1301C.

ARC 2201 - Theory of Architecture

3 Credit Hours (Fall, Spring)

An introduction to architectural theory, selected contemporary architectural theories and movements, and their evolution and historical basis. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ETD 1102.

ARC 2303A - Design 2.1

6 Credit Hours (Fall)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 2201.

ARC 2304 - Design 2.2

6 Credit Hours (Spring)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior.

Prerequisite(s): ARC 2303A.

ARC 2472 - Introduction to the Technology of Architecture

4 Credit Hours
(Summer)

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501 - Architectural Structures I

3 Credit Hours
(Offered as needed)

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the Technology of Architecture.

Prerequisite(s): any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

Total Program Elective Credits Required: 36

Total Articulation Program Credits Required: 72

AA Transfer Major: Art History & Appreciation

Admission Program Objective Code: ARTA
State CIP Code: 1192401010

Offered at FIU, FSU, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500703
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

or

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

or

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- XXXXXXXX - Competency requirement for a single foreign language*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Art Teacher Education

Admission Program Objective Code: ARTT
State CIP Code: 1192401010

Offered at FIU, UCF, UF*, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131302

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of

design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: Art, General

Admission Program Objective Code: ART

State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, UCF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of

"C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ❖ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ARHXXX - Any course with ARH prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Asian Studies

Admission Program Objective Code: ASIA

State CIP Code: 1192401010

Offered at FIU, FSU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050103

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Astronomy

Admission Program Objective Code: ASTR

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400201

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Athletic Training

Admission Program Objective Code: ATHL
State CIP Code: 1192401010

Offered at FGCU*, FSU*, UCF, UF*, UNF*, USF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510913

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Behavioral Healthcare

Admission Program Objective Code: BEHA
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440000
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- STAXXXX - Any course with the STA prefix

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biochemistry

Admission Program Objective Code: BICY
State CIP Code: 1192401010

Offered at FGCU, FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260202
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

or

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

or

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences - Interdisciplinary Natural Sciences

Admission Program Objective Code: BIOP
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 16/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Chemistry

Admission Program Objective Code: BICH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 1/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Program Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med,

and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours

(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours

(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Computer Science

Admission Program Objective Code: BICO
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 2/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours

(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Earth Science

Admission Program Objective Code: BIEA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 3/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Mathematics

Admission Program Objective Code: BIMA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 4/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of

ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Physics

Admission Program Objective Code: BIPH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 5/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med,

and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours

(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Computer Science

Admission Program Objective Code: CHCO

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 6/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Earth Science

Admission Program Objective Code: CHEA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 7/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Program Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Mathematics

**Admission Program Objective Code: CHMA
State CIP Code: 1192401010**

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 8/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Physics

Admission Program Objective Code: CHPY
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 9/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer & Earth Sciences

Admission Program Objective Code: CMEA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 10/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer Science & Math

Admission Program Objective Code: CMMA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 11/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer Science & Physics

Admission Program Objective Code: CMPH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 12/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Earth Science & Mathematics

Admission Program Objective Code: EAMA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 13/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Earth Science & Physics

Admission Program Objective Code: EAPH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 14/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Mathematics & Physics

Admission Program Objective Code: MAPH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 15/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals

and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological/Biosystems Engineering

Admission Program Objective Code: BIBI
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 144501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Biology, General

Admission Program Objective Code: BIOL
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, IRSC, MDC, SPC, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260101, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health

profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biology, General - FSU - Teach

Admission Program Objective Code: BIOF
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biomedical Sciences

Admission Program Objective Code: BIMD

State CIP Code: 1192401010

Offered at FSCJ, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260102

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biomedical/Bioengineering

Admission Program Objective Code: BIEN
State CIP Code: 1192401010

Offered at FIU, FGCU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biotechnology

Admission Program Objective Code: BITC

State CIP Code: 1192401010

Offered at FGSU, SFC, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 261201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Botany, General

Admission Program Objective Code: BOTA
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric

equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

AA Transfer Major: Business Administration

Admission Program Objective Code: BUSA

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the

economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Business Administration & Management

Admission Program Objective Code: BUSM
State CIP Code: 1192401010

Offered at CC, FAMU, FAU, FGCU, FIU*, FSCJ, FSU*, IRSC, SPC, UCF, UF, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520201

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Managerial Economics

Admission Program Objective Code: BMET

State CIP Code: 1192401010

Offered at UCF, UNF, USF*, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520601

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Marketing Management

Admission Program Objective Code: BMKT
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU*, FSU*, UCF, UF*, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521401

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲

(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows

operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours

(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours

(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business

applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Teacher Education/Business Technology Education

Admission Program Objective Code: BTEA
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131303
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be

associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

- XXXXXXX - Elective in Business Administration*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Business, General

Admission Program Objective Code: BUTN

State CIP Code: 1192401010

Offered at FSU*, UCF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Cardiopulmonary Science

Admission Program Objective Code: CARD
State CIP Code: 1192401010

Offered at FSWSC, VC*, FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510908

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

- CGSX060 (required at FAMU only)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Chemical Engineering

Admission Program Objective Code: CHEN
State CIP Code: 1192401010

Offered at FIU, FAMU, FSU, USF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Chemical Sciences - Chemical Sciences

Admission Program Objective Code: CMSI
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400599, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

AA Transfer Major: Chemical Sciences - FSU Teach

Admission Program Objective Code: CMST
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400599, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals

and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Chemistry

Admission Program Objective Code: CHEM
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400501, track 1/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

**Required for Bachelor in Science degree.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

*** May be used for Bachelor in Arts degree only.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Chemistry Teacher Education

Admission Program Objective Code: CHTE
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400501, track 2/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

**Required for Bachelor in Science degree.

or

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

*** May be used for Bachelor in Arts degree only.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Civil Engineering

Admission Program Objective Code: CIVI
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FSU, UCF, UNF, FIU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Communication and Media Studies

Admission Program Objective Code: COMS
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090199
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- 18 hours beyond the 36 hours of general education requirements. Cannot include ENC or LIT prefixes*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Communications (Mass), Media Studies or Converged Communications

Admission Program Objective Code: COMM

State CIP Code: 1192401010

Offered at FGCU, FSCJ, UCF, UNF, USFSP, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090102

* See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- 18 hours beyond the 36 hours of general education requirements. Cannot include ENC or LIT prefixes*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Community Health

Admission Program Objective Code: COMH

State CIP Code: 1192401010

Offered at FGCU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512208

* See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-

83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Community Health Liaison

Admission Program Objective Code: CMHL

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 511504

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HSC 1100 - Health Education

3 Credit Hours

(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PSY 2012 - Psychology

3 Credit Hours ♦

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦

(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

- STAXXXX - Any course with the STA prefix

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

AA Transfer Major: Computational Biology

Admission Program Objective Code: BICP
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer

institution to confirm program requirements.

Transfer Program CIP code: 261104
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health

profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Computational Science

Admission Program Objective Code: CMPT
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 303001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems,

mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours (Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

 - BSCXXXXC - Any lab course with the BSC prefix
or
 - CHMXXXXC - Any lab course with the CHM prefix
or
 - GLYXXXXC - Any lab course with the GLY prefix
or
 - METXXXXC - Any lab course with the MET prefix
or
 - PHYXXXXC - Any lab course with the PHY prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Computer Science

Admission Program Objective Code: CMIN

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 1/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- Choose two science courses for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

*See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Computer Science (FSU only)

Admission Program Objective Code: CFSU
State CIP Code: 1192401010

Offered at FSU*

Transfer Program CIP code: 110101, track 2/6

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)
- A science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Information Science (UNF only)

Admission Program Objective Code: CUNF

State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 4/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Information Technology

Admission Program Objective Code: CIIT
State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 5/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1570 - Computer Applications for Business

3 Credit Hours (Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

- An introductory object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SPCXXXX - Any course with the SPC prefix

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science- Information Systems

Admission Program Objective Code: CIS
State CIP Code: 1192401010

Offered at FAMU, UF, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 3/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - High level programming language course*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

or

ACG 2021 - Financial Accounting

3 Credit Hours
(Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours ♦**, equivalent, or higher

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Criminology

Admission Program Objective Code: CMCR
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430116
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- COP2XXX - Any computer programming course*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

AA Transfer Major: Computer Engineering - Computer & Information Engineering

Admission Program Objective Code: CMPE
State CIP Code: 1192401010

Offered at FAMU, FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140901, track 2/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Engineering - Computer Engineering

Admission Program Objective Code: CMEN

State CIP Code: 1192401010

Offered at FAMU, UF, FAU, FIU, FSU, UCF, USF*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140901, track 1/3

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAP 2302 - Differential Equations

3 Credit Hours

(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Networking (BAS)

Admission Program Objective Code: CNET
State CIP Code: 1192401010

Offered at FSCJ

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110901

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Science - BA in Computer Science (Track 6/6) (FSU)

Admission Program Objective Code: CMSC
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 6/6

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Computer Software & Media Applications

Admission Program Objective Code: CSFM

State CIP Code: 1192401010

Offered at FGCU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110899, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

- A science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Construction Engineering

Admission Program Objective Code: CONS
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140803
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Criminal Justice Studies

Admission Program Objective Code: CRIM
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, IRSC, PSC, UCF, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430104
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Criminology

Admission Program Objective Code: CRMO

State CIP Code: 1192401010

Offered at UF*, USF, USFSM, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450401

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Dental Hygiene (BAS)

Admission Program Objective Code: DEHY

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510602

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Dietetics/Nutritional Services

Admission Program Objective Code: DIET
State CIP Code: 1192401010

Offered at FIU*, FSU, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513101, track 1/2
* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Dietetics/Nutritional Services - Dietetics

Admission Program Objective Code: DIEN
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Digital Media

Admission Program Objective Code: DGMD

State CIP Code: 1192401010

Offered at FSCJ, GCSC, IRSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 100304
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

Associate in Arts Degree or Associate in Science Degree in Graphics, Design, Digital Media, Information Technology or related fields.

AA Transfer Major: Drama Education

Admission Program Objective Code: DRAM

State CIP Code: 1192401010

Offered at FAMU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500501, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Economics - Business

Admission Program Objective Code: ECOB
State CIP Code: 1192401010

Offered at FAMU, FAU, UF, UNF, USF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450601, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet

are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours

(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Economics - Social Sciences

Admission Program Objective Code: ECON

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FSU*, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450601, track 1/2

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Education of Blind & Visually Handicapped

Admission Program Objective Code: EDBL

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131009

*See note on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Education, General

Admission Program Objective Code: EDTR

State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 130101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Educational Studies

Admission Program Objective Code: EDST
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 139999
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

NOTE: Completion of this program does not result in educator certification.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be

associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Electrical, Electronics Engineering

Admission Program Objective Code: ELEL

State CIP Code: 1192401010

Offered at UF, FAMU, FAU, FSU, UCF, UNF, USF, FIU, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141001, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas,

volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Electronic Engineering Technology - Electrical & Computer Engineering Technology

Admission Program Objective Code: ELEC
State CIP Code: 1192401010

Offered at FAMU, VC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 150303
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Elementary Teacher Education

Admission Program Objective Code: ELED

State CIP Code: 1192401010

Offered at CC, DSC, FAMU, FGCU, FSU*, FSWSC, NWFSC, PSC, SFSC, UCF, UF*, USF, USFSM, USFSP, UWF, FIU, FAU, SPC, IRSC, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131202

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Energy Technology Management (BAS)

Admission Program Objective Code: ENRG

State CIP Code: 1192401010

Offered at SCFMS

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 150503
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Engineering Technology

Admission Program Objective Code: ENGN
State CIP Code: 1192401010

Offered at DSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 159999
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

AA Transfer Major: English Language and Literature

Admission Program Objective Code: ENLI
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF*, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 230101

* See Note on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: English Teacher Education

Admission Program Objective Code: ENTE
State CIP Code: 1192401010

Offered at CC, FAU, FSU, FSWSC, UCF, USF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131305
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- LITXXXX - Any course with the LIT prefix
or
- AMLXXXX - Any course with the AML prefix
or
- ENLXXXX - Any course with the ENL prefix

AA Transfer Major: Entomology

Admission Program Objective Code: ENTM
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260702
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric

equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

**3 Credit Hours ♦
(Fall, Spring, Summer)**

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Entrepreneurship

**Admission Program Objective Code: ENTR
State CIP Code: 1192401010**

Offered at USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520701

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

**3 Credit Hours
(Spring)**

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Environmental Health Engineering

Admission Program Objective Code: ENVR

State CIP Code: 1192401010

Offered at FIU, FGCU, UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Environmental Science

Admission Program Objective Code: ENVS
State CIP Code: 1192401010

Offered at FSU (BA only), UF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030104, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required.

The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω (Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

GLY 2010C - Principles of Geology I

4 Credit Hours (Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Environmental Science - Geography/Environmental Management

Admission Program Objective Code: ENVG
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 130104, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (FAU, UNF)

Admission Program Objective Code: EXFA
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310505, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HSC 1400 - First Aid

**3 Credit Hours
(Spring)**

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (FGCU only)

Admission Program Objective Code: EXFG

State CIP Code: 1192401010

Offered at FGCU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310505, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

**4 Credit Hours
(Fall, Spring, Summer)**

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

**3 Credit Hours ♦
(Fall, Spring, Summer)**

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (USF only)

Admission Program Objective Code: EXUS

State CIP Code: 1192401010

Offered at USF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131314, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear,

quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Finance, General (BS) or Banking (BAS)

Admission Program Objective Code: FINB
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU*, UCF, UF, UNF, USF*, USFSM*, USFSP*, UWF, SPC (BAS)

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520801

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

**3 Credit Hours
(Spring)**

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Financial Services

Admission Program Objective Code: FINS
State CIP Code: 1192401010

Offered at UNF, FSCJ

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520803
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

**3 Credit Hours ♦
(Fall, Spring, Summer)**

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics

include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Fire and Emergency Services

Admission Program Objective Code: FRES

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430203

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Fire Science Management (BAS)

Admission Program Objective Code: FIR1

State CIP Code: 1192401010

Offered at FSCJ

Transfer Program CIP code: 430202

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Food Science & Technology - Dietetics

Admission Program Objective Code: FSTD

State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 011001, track 2/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Food Science & Technology - Food Science

Admission Program Objective Code: FOOD

State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 011001, track 1/2

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Foreign Language, Multiple

Admission Program Objective Code: FORG
State CIP Code: 1192401010

Offered at UCF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.*

*See Notes on Common Course Prerequisite Manual

AA Transfer Major: Forensic Science

Admission Program Objective Code: FORE

State CIP Code: 1192401010

Offered at FGCU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430106
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Forest Resources & Conservation - Wildlife Ecology & Conservation

Admission Program Objective Code: FORW
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030501, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: General Studies

Admission Program Objective Code: GENS
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240106
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geology

Admission Program Objective Code: GEOT

State CIP Code: 1192401010

Offered at FAU, FIU, FSU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400601, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geology - Earth Science Teacher Education

Admission Program Objective Code: GEEA
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400601
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geomatics Engineering

Admission Program Objective Code: GEOE

State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 143801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours

(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours

(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current

circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Geoscience - FSU Teach

Admission Program Objective Code: GEOS

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141401, track 2/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours

(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric

substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours (Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
 - SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Gerontology

Admission Program Objective Code: GERO
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 301101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Graphic Design

Admission Program Objective Code: GRPH
State CIP Code: 1192401010

Offered at FAMU, FSU*, UF*, USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500409

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment in studio art classes is permitted on a space-available basis only.

GRA 2190C - Graphic Design I

3 Credit Hours (Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- GRAXXXX - Any course with the GRA prefix

AA Transfer Major: Health and Physical Education, General - Exercise Science

Admission Program Objective Code: HPEE
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 3/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦ (Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HSC 1400 - First Aid

3 Credit Hours (Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health and Physical Education, General - Health, Leisure, and Fitness Studies

Admission Program Objective Code: HPEH
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 4/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Health and Physical Education, General - Physical Education

Admission Program Objective Code: HPEP
State CIP Code: 1192401010

Offered at FAMU, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 2/4
* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- 4 Credit hours in Skill Development Courses in Physical Activities
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Information Management

Admission Program Objective Code: HEIM
State CIP Code: 1192401010

Offered at FAMU, UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510706

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

STA 2023 - Statistics

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics

include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- CGSXXXX - Any course with the CGS prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science (Track 5/7) (SSCF, FGCU)

Admission Program Objective Code: HESC
State CIP Code: 1192401010

Offered at FGCU, SSCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 5/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Community Health (Track 6/7) (UNF)

Admission Program Objective Code: HUNF

State CIP Code: 1192401010

Offered at UNF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 6/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- STAXXXX - Any course with the STA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Concentration in Physician Assistant Studies (Track 2/7) **(MDC)**

Admission Program Objective Code: HMDC
State CIP Code: 1192401010

Offered at MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer

institution to confirm program requirements.

Transfer Program CIP code: 510000, track 2/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Pre-Clinical/Pre-Physical Therapy (Track 3/7) (FAMU, UCF)

Admission Program Objective Code: HSPC
State CIP Code: 1192401010

Offered at FAMU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 3/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory

technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Services Administration

Admission Program Objective Code: HLSR
State CIP Code: 1192401010

Offered at SFC, FAMU, FAU, FGCU, FIU, IRSC, SCFMS, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory

will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Health Services Administration (BAS)

Admission Program Objective Code: HSAD
State CIP Code: 1192401010

Offered at EFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512211
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Health Teacher Education (FSU)

Admission Program Objective Code: HTED
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131307
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: History

Admission Program Objective Code: HIST
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 540101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- AMHXXXX - Any course with the AMH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- WOHXXXX - Any course with the WOH prefix

- AMHXXXX - Any course with the AMH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- WOHXXXX - Any course with the WOH prefix

AA Transfer Major: Honors College (FAU)

Admission Program Objective Code: HONB
State CIP Code: 1192401010

Offered at FAU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240199, track 2/2
*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Honors College (NCF)

Admission Program Objective Code: HONA
State CIP Code: 1192401010

Offered at NCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240199, track 1/2

*See note in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (FAU, FSU, UWF)

Admission Program Objective Code: HAMB
State CIP Code: 1192401010

Offered at FAU, FSU*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 2/4

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2021 - Financial Accounting

3 Credit Hours
(Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours ♦**, equivalent, or higher
or

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the

activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry

terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (FIU)

Admission Program Objective Code: HAMD

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 4/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (Track 1/4) (FIU, FSU, UCF)

Admission Program Objective Code: HAMA

State CIP Code: 1192401010

Offered at FIU, FSU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 1/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (USFSM)

Admission Program Objective Code: HAMC

State CIP Code: 1192401010

Offered at USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 3/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Human Resource Management

Admission Program Objective Code: HRMG
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Human Services

Admission Program Objective Code: HUSR

Offered at FSCJ, IRSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440000, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Humanities

Admission Program Objective Code: HUMA

State CIP Code: 1192401010

Offered at FSU, UCF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240103
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Industrial & Systems Engineering

Admission Program Objective Code: INSY

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 142701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and

planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Industrial/Manufacturing Engineering

Admission Program Objective Code: INDS

State CIP Code: 1192401010

Offered at FAMU, FSU, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 143501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Information Sciences and Studies - Computer Information Systems EN EIF

Admission Program Objective Code: INSC
State CIP Code: 1192401010

Offered at EFSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See notes on Common Course Prerequisite Manual

AA Transfer Major: Information Technology (BC, FAMU, FIU, FSU, USF, UWF)

Admission Program Objective Code: INTB
State CIP Code: 1192401010

Offered at BC, FAMU, FIU, FSU, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110103, track 2/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course

and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ECO 2013 - Economics I

3 Credit Hours ♦ (Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- CGSXXXX - Any database course* (CGS 2541 ,CGS 2544)*
- COPXXXX - Any computer programming course*
- COPXXXX - COPXXXX - Any object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)
- MACXXXX Pre-Calculus course or Discrete Math

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Information Technology (UCF, USFSM, DSC)

Admission Program Objective Code: INTA

State CIP Code: 1192401010

Offered at UCF, USF, USFSM, DSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110103, track 1/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- PSYXXXX - Any course with the PSY prefix

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics,

mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

- CGSXXXX - Any database course* (CGS 2541 ,CGS 2544)
- COP2XXX - Any computer programming course*
- PHYXXXX - Any course with the PHY prefix
- COPXXXX - Any object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Insurance

Admission Program Objective Code: INSU

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521701

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be

emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Interdisciplinary Studies

Admission Program Objective Code: INTE
State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 309999

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum

grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦

(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Interior Design (BAS)

Admission Program Objective Code: INDE
State CIP Code: 1192401010

Offered at SSCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500408, track 3/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International /Global Studies

Admission Program Objective Code: INTG
State CIP Code: 1192401010

Offered at UCF, UF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 302001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International Business Management

Admission Program Objective Code: INTN
State CIP Code: 1192401010

Offered at FAU, FIU, FSU*, SCFMS, SPC, USF*, USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

**3 Credit Hours
(Fall, Spring)**

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International Relations

Admission Program Objective Code: INTR
State CIP Code: 1192401010

Offered at FIU, FSU, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450901
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jewish Studies

Admission Program Objective Code: JWST

State CIP Code: 1192401010

Offered at FAU, FU

Transfer Program CIP code: 380206

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Journalism

Admission Program Objective Code: JOUR

State CIP Code: 1192401010

Offered at UCF*, FAMU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090401

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade English/Middle Grade Social Science Ed

Admission Program Objective Code: MTES

State CIP Code: 1192401010

Offered at UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 2/7

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- AMLXXXX - Any course with the AML prefix*
- or
- LITXXXX - Any course with the LIT prefix
- or

- ENCXXXX - Any course with the ENC prefix
or
- ENLXXXX - Any course with the ENL prefix
AND
- AMHXXXX - Any course with the AMH prefix
or
- WOHXXXX - Any course with the WOH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- POSXXXX - Any course with the POS prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade English/Middle Grade Special Ed

Admission Program Objective Code: MTSP

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 7/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- AMLXXXX - Any course with the AML prefix*
- or
- LITXXXX - Any course with the LIT prefix
- or
- ENCXXXX - Any course with the ENC prefix
- or
- ENLXXXX - Any course with the ENL prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade English Ed

Admission Program Objective Code: MTEN

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 3/7

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.
and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours (Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

- AMLXXXX - Any course with the AML prefix
 - or
 - LITXXXX - Any course with the LIT prefix
 - or
 - ENCXXXX - Any course with the ENC prefix
 - or
 - ENLXXXX - Any course with the ENL prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade Science Ed

Admission Program Objective Code: MTMS

State CIP Code: 1192401010

Offered at NWFSC, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 1/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1114 - Trigonometry

3 Credit Hours

(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours

(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

- GLYXXXXC - Any course with the GLY prefix that includes a lab
or
- METXXXXC - Any course with the MET prefix that includes a lab
or
- OCEXXXXC - Any course with the OCE prefix that includes a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade Social Science Ed

Admission Program Objective Code: MTSS
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 4/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this

course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.
and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements

for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

- AMHXXX - Any course with the AMH prefix
or
- WOHXXXX - Any course with the WOH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- POSXXXX - Any course with the POS prefix
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Science/Middle Grade English Ed

Admission Program Objective Code: MTSE
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 5/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- GLYXXXXC - Any course with the GLY prefix that includes a lab

or

- METXXXXC - Any course with the MET prefix that includes a lab

or

- OCEXXXXC - Any course with the OCE prefix that includes a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- AMLXXXX - Any course with the AML prefix*
 - or
 - LITXXXX - Any course with the LIT prefix
 - or
 - ENCXXXX - Any course with the ENC prefix
 - or
 - ENLXXXX - Any course with the ENL prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Science/Middle Grade Social Science Ed

Admission Program Objective Code: MTSC
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 6/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ESC 1000 - Earth Science

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- GLYXXXXC - Any course with the GLY prefix and a lab

or

- METXXXXC - Any course with the MET prefix and a lab

or

- OCEXXXXC - Any course with the OCE prefix and a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and

incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- AMHXXX - Any course with the AMH prefix
or
- WOHXXXX - Any course with the WOH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- POSXXXX - Any course with the POS prefix
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Latin American Studies (FSU)

Admission Program Objective Code: LATA

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050134

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Latin American Studies (UCF)

Admission Program Objective Code: LAAS

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050107

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Legal Assisting

Admission Program Objective Code: LEGA
State CIP Code: 1192401010

Offered at UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220302
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Legal Studies, General (UCF)

Admission Program Objective Code: LEGL
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220000
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- No specific courses are required

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Liberal Arts & Sciences

Admission Program Objective Code: LIAS

State CIP Code: 1192401010

Offered at FAU, FIU, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Linguistics

Admission Program Objective Code: LING

State CIP Code: 1192401010

Offered at FAU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160102

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- XXXXXXXX - Demonstrated competency by testing or completion of a foreign language through the intermediate level (SPN 2220 - Spanish III or ASL 2160 - American Sign Language III at NWFSC)*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management and Supervision (BAS - NWF)

Admission Program Objective Code: SVMG

State CIP Code: 1192401010

Offered at BCC, BC, CC, CCF, DSC, FSWFC, FSCJ, GCSC, IRSC, LSSC, MDC, NWFSC, PBSC, PESC, PSC, SFC, SFSC, SJRSC, SPC

(Also see Supervision and Management)

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520299

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management Info Systems - Business/Data Processing/Business Information Mgt

Admission Program Objective Code: MGIN

State CIP Code: 1192401010

Offered at FAU, FGCU, FSU*, SSCF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521201

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management Science

Admission Program Objective Code: MGNT
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Marine/Aquatic Biology

Admission Program Objective Code: MARI

State CIP Code: 1192401010

Offered at FIU, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 261302

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Marketing, Other - Advertising

Admission Program Objective Code: MARO
State CIP Code: 1192401010

Offered at USF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521499

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Materials Engineering

Admission Program Objective Code: MATE
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Mathematics General - Mathematics General

Admission Program Objective Code: MATH
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 1/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (Please check with your transfer institution for the appropriate course)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics Teacher Education - Jr. High/Middle School Mathematics Ed (NWF)

Admission Program Objective Code: MATN

State CIP Code: 1192401010

Offered at BC, CC, FSWSC, IRSC, NWFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131311, track 2/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of

differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- MACXXXX - Any course with the MAC prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics Teacher Education - Secondary Mathematics Education

Admission Program Objective Code: MATR

State CIP Code: 1192401010

Offered at BC, CC, DSC, FAU, FSWSC, IRSC, UNF, USF, SPC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131311, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

- MACXXXX - Any course with the MAC prefix
 - or
 - MTGXXXX - Any course with the MTG prefix
 - or
 - MASXXXX - Any course with the MAS prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics, General - FSU - Teach

Admission Program Objective Code: MFSU
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 3/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

MAP 2302 - Differential Equations

3 Credit Hours

(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics, General - Mathematics Teacher Education

Admission Program Objective Code: MFIU

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 4/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658, COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus,

area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mechanical Engineering

Admission Program Objective Code: MECH

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FPU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141901

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Medical Technology/Clinical Laboratory Sciences

Admission Program Objective Code: MEDC
State CIP Code: 1192401010

Offered at USF, SFC, FGCU, UCF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 511005

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦ (Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Meteorology - Meteorology

Admission Program Objective Code: METE
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400401, track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Microbiology/Bacteriology

Admission Program Objective Code: MCBA
State CIP Code: 1192401010

Offered at UCF, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260503
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Middle Eastern Studies

Admission Program Objective Code: MIDE

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050108

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Motion Picture & Television Technology

Admission Program Objective Code: MOTP

State CIP Code: 1192401010

Offered at FSU*, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500602, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Multi-/Interdisciplinary Studies

Admission Program Objective Code: MULT

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300000

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Music Composition (FSU)

Admission Program Objective Code: MUCO

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500904

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours

(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic

dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

1 Credit Hour
(Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix **4 Credit Hours**
- MV(K/S/V) XX1X (Applied Music course) **2-4 Credit Hours**
- MV(K/S/V) XX2X (Applied Music course) **2-4 Credit Hours**
- XXXXXXX

- Secondary Piano Proficiency (exam)
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music Performance (FGCU, FSU, UCF, UNF, USF, UWF)

Admission Program Objective Code: PERF

State CIP Code: 1192401010

Offered at FGCU*, FSU*, UCF, UNF*, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500903

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours

(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours

(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

**3 Credit Hours
(Fall)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

**3 Credit Hours
(Spring)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music Studies (USF)

Admission Program Objective Code: MSTU
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 509999
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours (Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours (Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours (Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours (Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

1 Credit Hour
(Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music, General (FAMU, FAU, FSU*, UF*, FIU*) (Track 1/2)

Admission Program Objective Code: PERF

State CIP Code: 1192401010

Offered at FAMU, FAU, FSU*, UF*, FIU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500901

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours

(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours

(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of

analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nonprofit Management (UCF)

Admission Program Objective Code: NPRO
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520206
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nuclear Engineering

Admission Program Objective Code: NUCL
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 142301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of

differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and

incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Nursing (Track 1/2)

Admission Program Objective Code: NRSN

State CIP Code: 1192401010

Offered at FAMU*, FAU*, FGCU*, FIU*, FSU*, UCF*, UF*, UNF*, USF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513801, Track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- BSCXXXX - Any course with the BSC prefix
or
- CHMXXXX - Any course with the CHM prefix
or
- PHYXXXX - Any course with the PHY prefix

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- SYGXXXX - Any course with the SYG prefix

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours

(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nursing - AS to BS (NWF)

Admission Program Objective Code: NUR1

State CIP Code: 1192401010

Offered at BC, CC, CCF, DSC*, FAMU*, FAU*, FSCJ, FSWSC, GCSC, NWFSC, PBSC, PESC, PHSC, PSC, SCFMS, SFC, SFSC, IRSC, SPC, SJRSC, TCC, FGCU*, FIU*, FSU*, FGC, MDC, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513801, track 2/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- BSCXXXX - Any course with the BSC prefix
or
- CHMXXXX - Any course with the CHM prefix
or
- PHYXXXX - Any course with the PHY prefix

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- or
- SYGXXXX - Any course with the SYG prefix

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Paralegal Studies (BAS)

Admission Program Objective Code: PLAA
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220302, 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Parks & Recreation Management

Admission Program Objective Code: PRKF

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 6/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

AA Transfer Major: Parks & Recreation Management - Hospitality, Recreation & Resort Management

Admission Program Objective Code: PRKH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 5/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Parks & Recreation Management - Instruction

Admission Program Objective Code: PKRE
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 1/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Parks & Recreation Management - Recreation and Tourism

Admission Program Objective Code: PRKT

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 3/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Parks & Recreation Management - Recreation, Tourism & Events

Admission Program Objective Code: PRKR
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 2/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

AA Transfer Major: Pharmaceutical Science

Admission Program Objective Code: PHAR
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512099
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Pharmacy (Pharm D)

Admission Program Objective Code: PHAD
State CIP Code: 1192401010

Offered at FAMU*, UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512001

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory

technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and

determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Philosophy

Admission Program Objective Code: PHIL
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 380101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Philosophy and Religion

Admission Program Objective Code: PHRL

State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 389999

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Photonics Science and Engineering

Admission Program Objective Code: PHEN

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141003

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus,

area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physical Education Teacher Education

Admission Program Objective Code: PHED
State CIP Code: 1192401010

Offered at FIU, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131314
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

or

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

- PELXXXX - 4-5 credit hours of courses with the PEL prefix
 - PEMXXXX - 3 hours of courses with the PEM prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physical Science

Admission Program Objective Code: PHSC
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400899, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Physical Science - FSU Teach

Admission Program Objective Code: PHYT
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400899, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physics

Admission Program Objective Code: PHYS
State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400801, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Physics Teacher Education

Admission Program Objective Code: PHTE

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400801, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Political Science & Government

Admission Program Objective Code: POTL
State CIP Code: 1192401010

Offered at FAU, UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Pre-Elementary/Early Childhood Teacher Ed - Age 3 through Grade 3

Admission Program Objective Code: ECHA
State CIP Code: 1192401010

Offered at CCF, FGC, FGCU, FSCJ, FSU*, MDC, NWFSC, PSC, SCFMS, SFC, SJRSC, UCF, UNF, UWF, SPC, USF, USFSM, FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131210

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this

course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Professional Communication

Admission Program Objective Code: PRCO

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090900

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Project Management (BAS - NWF)

Admission Program Objective Code: PROJ

State CIP Code: 1192401010

Offered at NWFSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520202

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Psychobiology

Admission Program Objective Code: PSYB
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 422706
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the

individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Psychology, General

Admission Program Objective Code: PSCH
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, UCF, UF*, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 420101

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- One of the following Biology courses: BSC 1005, BSC 1010C, BSC 1011C, BSC 1080, BSC 1085C, BSC 1086C, BSC 2020C
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- One of the following Psychology courses: CLP 1001, CLP 2140, DEP 2004, DEP 2100

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Health (FGCU, USF)

Admission Program Objective Code: PUBH
State CIP Code: 1192401010

Offered at FGCU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability

distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours (Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Policy and Administration

Admission Program Objective Code: PUBP
State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, IRSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲ (Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

**3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)**

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Relations & Organizational Communication

**Admission Program Objective Code: PUBC
State CIP Code: 1192401010**

Offered at FAMU*, UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090902

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ◆ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ◆
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ◆
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Safety and Security

Admission Program Objective Code: PUBC

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430107

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Safety Mgt (BAS) or Public Admin (BAS) or Public Safety/Homeland Security

Admission Program Objective Code: PBHL

State CIP Code: 1192401010

Offered at FAU, FSCJ, FSWSC, MDC, SCFMS, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 439999

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Radio & TV Broadcasting

Admission Program Objective Code: RADO

State CIP Code: 1192401010

Offered at UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090701

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Radiologic and Imaging Science

Admission Program Objective Code: RDTG

State CIP Code: 1192401010

Offered at VC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510907

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦

(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

*To be admitted, a student must have current American Registry of Radiologic Technologists (ARRT) certification.**

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Real Estate

Admission Program Objective Code: REAL
State CIP Code: 1192401010

Offered at FAU, FIU, FSU*, UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521501

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability

distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Religious Studies

Admission Program Objective Code: RELG

State CIP Code: 1192401010

Offered at FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 380201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Resort & Hospitality Management

Admission Program Objective Code: RSHO

State CIP Code: 1192401010

Offered at FGCU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520906
* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Restaurant and Food Service Management

**Admission Program Objective Code: REST
State CIP Code: 1192401010**

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520905
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Rhetorical Speech & Communication

**Admission Program Objective Code: RHET
State CIP Code: 1192401010**

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 231304
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Russian & East European Studies

Admission Program Objective Code: RUSS
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050105
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Biology Teacher Ed (BC, CC, DSC, FSWSC, IRSC, NWFSC, SPC, MDC)

Admission Program Objective Code: SCIB

State CIP Code: 1192401010

Offered at BC, CC, DSC, FSWSC, IRSC, NWFSC, SPC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131322

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Any two of the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Biology Teacher Education (FAMU, FAU, UCF, UNF, USF)

Admission Program Objective Code: STEB
State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 1/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

Choose any two of the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Chemistry Teacher Education (DSC, MDC)

Admission Program Objective Code: SCIC

State CIP Code: 1192401010

Offered at DSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131323

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Chemistry Teacher Education (FAMU, FAU, UCF, UNF, USF)

Admission Program Objective Code: STEC
State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 2/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered

if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Earth/Space Teacher Education

**Admission Program Objective Code: STEE
State CIP Code: 1192401010**

Offered at DSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 3/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

**3 Credit Hours
(Fall, Spring)**

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be

associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- GLYXXXX OR GLYXXXXC
- OCEXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Middle Grades Science Teacher Education (NWF)

Admission Program Objective Code: MSC1
State CIP Code: 1192401010

Offered at BC, CC, FSWSC, IRSC, NWFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 5/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically

about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- GLYXXXX OR GLYXXXXC
- OCEXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Physics Teacher Education

Admission Program Objective Code: STEP

State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Offered at DSC, MDC - CIP code 131329

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 4/5

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and

planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours (Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Ed - English

Admission Program Objective Code: SETE
State CIP Code: 1192401010

Offered at UCF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 1/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

- LITXXXX - Any course with the LIT prefix
- or
- AMLXXXX - Any course with the AML prefix

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

or

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Ed - Social Science

Admission Program Objective Code: SESS
State CIP Code: 1192401010

Offered at FAMU, UCF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 2/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

- ECOXXXX - Any course with the ECO prefix
or
- SOCXXXX - Any course with the SOC prefix
or
- ANTXXXX - Any course with the ANT prefix
or

- PSYXXXX - Any course with the PSY prefix
or
 - GEAXXXX - Any course with the GEA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Biology Teacher Education (Track 4/6) (UCF)

Admission Program Objective Code: BTED

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 4/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

Select one course from the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Select one course from the following:

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.
or

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.
or

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Chemistry Teacher Education (Track 5/6) (UCF)

Admission Program Objective Code: CTED
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 5/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be

associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

Select from the following groups of courses:

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
and

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
and

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Physics Teacher Education (Track 6/6) (UCF)

Admission Program Objective Code: PHYE

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 6/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours (Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Secondary Mathematics Teacher Education (Track 3/6) (UCF)

Admission Program Objective Code: SMTE

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 3/6

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General

Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Select one course from the following:

MAC XXXX

or MTG XXXX

or MAS XXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Psychology

Admission Program Objective Code: SOPS
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 422707
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Sciences Teacher Ed (History, Social Science, Economics, and Political Science)

Admission Program Objective Code: SSTE
State CIP Code: 1192401010

Offered at FAMU, FAU, FSU, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131317
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours **(Fall, Spring)**

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

- ECOXXXX - Any course with the ECO prefix
or
 - SOCXXXX - Any course with the SOC prefix
or
 - ANTXXXX - Any course with the ANT prefix
or
 - PSYXXXX - Any course with the PSY prefix
or
 - GEAXXXX - Any course with the GEA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Sciences, General

Admission Program Objective Code: SOSI

State CIP Code: 1192401010

Offered at FAU, FSU, UCF, USF, USFSM, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- Choose any two AA General Education Social Science courses

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Work, General

Admission Program Objective Code: SOWR

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, UCF*, USF*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440701

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ◆ ◆
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

SYG 2010 - Social Problems

3 Credit Hours ◆ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: Sociology

Admission Program Objective Code: SOCI
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- Two Sociology courses - Choose from: SYG 2000, SYG 2010, SYG 2430

AA Transfer Major: Sociology - Anthropology

Admission Program Objective Code: SOAN
State CIP Code: 1192401010

Offered at FUI

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451101, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Spanish

Admission Program Objective Code: SPAN

State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160905
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SPN 1121 - Spanish II

4 Credit Hours
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills –

listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): SPN 1120 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2220 - Spanish III

4 Credit Hours (Offered as needed)

Intermediate level review of grammar, readings in Spanish Literature, and development of conversational and writing skills.

Prerequisite(s): SPN 1121 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Special Education, General

Admission Program Objective Code: SPED
State CIP Code: 1192401010

Offered at BC, CC, DSC, FAU, FGCU, FIU, FSU*, UCF, UF*, UNF, USF, USFSM, USFSP, UWF, SPC, IRSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this

course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Speech Communication and Rhetoric

Admission Program Objective Code: SPCO

State CIP Code: 1192401010

Offered at FAU, FIU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Speech Pathology & Audiology (FSU, UCF, UF, USF)

Admission Program Objective Code: SPCP

State CIP Code: 1192401010

Offered at FSU*, UCF, UF*, USF, USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510204, track 1/3

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- BSCXXXX - Any course with the BSC prefix

- PHYXXXX - Any course with the PHY prefix
or
- CHMXXXX - Any course with the CHM prefix

- PSYXXXX - Any course with the PSY prefix
or
- CLPXXXX - Any course with the CLP prefix
or
- DEPXXXX - Any course with the DEP prefix
or
- SYGXXXX - Any course with the SYG prefix

AA Transfer Major: Speech Pathology & Audiology (USFSM)

Admission Program Objective Code: SPCU

State CIP Code: 1192401010

Offered at USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510201

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- BSCXXXX - Any course with the BSC prefix

- PHYXXXX - Any course with the PHY prefix
or
- CHMXXXX - Any course with the CHM prefix

- PSYXXXX - Any course with the PSY prefix
or
- CLPXXXX - Any course the the CLP prefix
or
- DEPXXXX - Any course with the DEP prefix
or
- SYGXXXX - Any course with the SYG prefix

AA Transfer Major: Speech Pathology & Audiology - Deaf Studies Concentration

Admission Program Objective Code: SPCH
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510204, track 3/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Sport Management

Admission Program Objective Code: SPME

State CIP Code: 1192401010

Offered at FSU, UF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310504

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- MARXXXX - Any course with the MAR prefix
or
- GEBXXXX - Any course with the GEB prefix

- MANXXXX - Any course with the MAN prefix
or
- BULXXXX - Any course with the BUL prefix
or
- CGSXXXX - Any course with the CGS prefix
or
- STA 2023 - Statistics **4 Credit Hours**
or
- ACGXXXX - Any course with the ACG prefix

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

or

- ECOXXXX - Any course with the ECO prefix (ECO 2013 or ECO 2023)

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Statistics

Admission Program Objective Code: STAT
State CIP Code: 1192401010

Offered at FIU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of

differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

- Two laboratory based science courses for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Studio/Fine Art

Admission Program Objective Code: SDAR

State CIP Code: 1192401010

Offered at FAMU, FGCU,, FIU, FSU*, UCF, UF*, UNF*, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500702, track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial

relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of

stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ARTXXXX - Two courses with the ART prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Studio/Fine Art - Graphic Design

Admission Program Objective Code: SDGD

State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500702, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- ARHXXXX - Any course with the ARH prefix

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- GRAXXXX - Any course with the GRA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Supervision & Management (BAS), Organizational Mgt (BAS), Business & Org Mgt (BAS), Administration & Supervision (BAS), Spvr & Org Mgt (BAS) Mgt & Org Leadership (BAS)

Admission Program Objective Code: SVMG

State CIP Code: 1192401010

Offered at BCC, BC, CC, CCF, DSC, FSWFC, FSCJ, GCSC, IRSC, LSSC, MDC, NWFSC, PBSC, PESC, PSC, SFC, SFSC, SJRSC, SPC

(CIP 520299 is Management and Supervision at NWFSC)

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520299

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Supply Chain Management (BAS)

Admission Program Objective Code: SUPP

State CIP Code: 1192401010

Offered at BC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520203, track 1/3

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Surveying

Admission Program Objective Code: SURV

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 151102

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems,

mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Sustainability and Built Environment

Admission Program Objective Code: SSBL

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 303301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Sustainability Management - BAS

Admission Program Objective Code: SUST

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030299
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

Students with the following Associate in Science (AS) degrees will be admitted: Environmental Science Technology, Architectural Design & Construction Technology, Drafting and Design Technology or Engineering Technology.

Students who do not have one of the AS degrees listed will be required to take 15 credits in related coursework which mirrors coursework for SPC's AS in Environmental Science Technology degree requirements.

- The courses include: ARCXXXX, CHMXXXX, ECO 2013, ECO 2023, EETXXXX, ETM 1010C, ESCXXXX, EVRXXXX, GLYXXXX, GIS 1040C, OCEXXXX, PHYXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Teacher Education, Multiple Levels (Track 1/3) (USFSP)

Admission Program Objective Code: TCHE

State CIP Code: 1192401010

Offered at USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131206, track 1/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Teacher Education, Multiple Levels - Art Education (Track 2/3) (UCF)

Admission Program Objective Code: ARTE

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131206, track 2/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

ART 1300C - Drawing I

3 Credit Hours (Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours (Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

Select one course from the following:

ART 1301C - Drawing II

3 Credit Hours (Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Technology Management (BAS)

Admission Program Objective Code: TCMG

State CIP Code: 1192401010

Offered at BC, FSCJ, GCSC, PBSC, SCFMS, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 111099

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

Admission into this BAS program requires an AS degree from a regionally-accredited institution in Computer Engineering Technology, Computer Information Technology, Computer Programming or Database Technology. Students with an AA degree, 60 credit hours but no degree, or an AS degree in another area may be admitted by the Dean on a case-by-case basis.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Tourism and Travel Services Management

Admission Program Objective Code: TOUR

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520907
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Trade & Industrial Teacher Ed (Vocational)

Admission Program Objective Code: TRAD
State CIP Code: 1192401010

Offered at FIU, UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131320
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- 15 hours in courses from the area of specialization*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Transportation Management

Admission Program Objective Code: TRAN

State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520209

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1550 - Introduction to World Wide Web

3 Credit Hours
(Fall)

This course provides an introduction to the required hardware, software, procedures, uses and building web pages on the World Wide Web and the Internet.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Urban & Regional Planning

Admission Program Objective Code: URBA
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 040301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Urban Design

Admission Program Objective Code: URDS
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 040401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Veterinary Technology (BAS)

Admission Program Objective Code: VET
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510808
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Vocational Rehabilitation Counseling

Admission Program Objective Code: VOCR

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512310

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

PSY 2012 - Psychology

3 Credit Hours ♦

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦

(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SYGXXXX - Any course with the SYG prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Women's Studies

Admission Program Objective Code: WOMN

State CIP Code: 1192401010

Offered at FIU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050207

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Zoology

Admission Program Objective Code: ZOO

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260701

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions,

applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

AA Transfer Major: Health Science (Track 1/7) (FAU, UF*, USF, USFSP, UWF)

Admission Program Objective Code: HSCI
State CIP Code: 1192401010

Offered at FAU, UF*, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, Track 1/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦ (Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular

growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

or

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Interdisciplinary Medical Science (Track 7/7) (FSU)

Admission Program Objective Code: MESI
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, Track 7/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

Select from the following:

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours (Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music, General - Music Teacher Education (FIU*) (Track 2/2)

Admission Program Objective Code: MTEA

State CIP Code: 1192401010

Offered at FIU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500901
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours (Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours (Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of

analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AAS Degree General Education Requirements

All A.A.S. degree programs at NWF State College require a minimum of 18 college credits in general education. Unless otherwise specified in the program requirements, students must complete one course from each of the following categories to meet general education requirements.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options (designated with ♦) in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social

Sciences. The A.A.S. degree programs provide flexibility for entering the job market or continuing education. Students who take general education courses are guaranteed transfer of those courses when continuing their education within the Florida College and University System.

NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA, AS, and AAS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

Communications: 3

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

LIN 1670 - Writing and Grammar

3 Credit Hours (Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

- _____ - Any other AA General Education Communications Course
 - ◆ **Core General Education**
 - ▲ **Technology-Across-the Curriculum**
 - ¶ **Writing requirements**

Humanities: 3

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

ARH 1000 - Art Appreciation

3 Credit Hours ◆ † ◆ ¶ (Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ❖ † ◆ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ◆ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ♦ ¶

(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶

(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Rich Text Editor, text_description, Press ALT 0 for help

- ____ - Any other AA General Education Humanities course with the † symbol or any General Education Humanities course AND another course with the † symbol.
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Mathematics: 3

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

MAT 1033A - Intermediate Algebra

4 Credit Hours **(Fall, Spring, Summer)**

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MAC 1105 - College Algebra

3 Credit Hours ♦ **(Fall, Spring, Summer)**

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for

general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):

Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 123 or higher on the math section of the PERT OR
- (2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
- (3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

____ - Any other AA General Education Mathematics course

♦ **Core General Education**

Natural Sciences: 3

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Natural Science course

♦ **Core General Education**

Social Sciences: 3

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Social Science course
 - ♦ **Core General Education**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Additional General Education Credits: 3

ASL 1140 - American Sign Language I

4 Credit Hours ♦
(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ◆
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for

Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- ____ - Any other AA General Education course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ❖ **International and/or diversity focus**

Total AAS General Education Credits Required: 18

Footnote Legend

Symbol	Description
♦	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.

▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.
†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
¶	Courses listed with this symbol meet writing requirements outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AAS Degree Checklist:

- Have you completed a minimum of 18 credit hours in the following areas?
 - 3 hours in Communications
 - 3 hours in Humanities
 - 3 hours in Social Sciences
 - 3 hours in Mathematics
 - 3 hours in Natural Sciences
 - 3 Additional hours in General Education Credits
- Have you completed the required Core and Technical Elective course work for your A.A.S. degree?
- Have you completed at least 25% of the total number of credits for your A.A.S. degree at NWF State College?
- Have you met the minimum 2.0 GPA requirements for the A.A.S.?

Accounting Technology (AS)

Admission Program of Study Code ACCT State CIP Code 1552030201

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Accounting Technology Management (CCC) (State CIP Code 0552030205).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours (Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACO 1806 - Payroll Accounting

3 Credit Hours
(Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 36

Technical Elective Courses

Select 6 credits from the following:

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Total Technical Elective Credits Required: 6

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Accounting Technology (AS) (ACCT)
First Year
Fall Semester CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours GEB 1011 - Introduction to Business 3 Credit Hours MTB 1103 - Business Mathematics 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Humanities General Education 3 Credit Hours Total Semester Hours: 15
Spring Semester ECO 2013 - Economics I 3 Credit Hours ♦ ENC 2210 - Technical Report Writing 3 Credit Hours ACO 1806 - Payroll Accounting 3 Credit Hours Science General Education Course 3 Credit Hours Additional General Education Credits 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester

ACG 2001 - Accounting I **3 Credit Hours**

BUL 2241 - Business Law I **3 Credit Hours**

Technical Elective **3 Credit Hours**

Social Science General Education **3 Credit Hours**

Mathematics General Education Course **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ACG 2011 - Accounting II **3 Credit Hours**

ACG 2450 - Computer Applications for Accounting **3 Credit Hours**

TAX 2000 - Federal Income Tax: Individual **3 Credit Hours**

ACG 2071 - Managerial Accounting **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Accounting Technology Management (CCC)

Admission Program of Study Code AASA

State CIP Code 0552030205

Students who successfully complete this certificate may be eligible to receive credits towards the Accounting Technology (AS) degree (State CIP Code 1552030201).

Core Courses

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours (Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACO 1806 - Payroll Accounting

3 Credit Hours (Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

**3 Credit Hours
(Fall, Spring)**

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1011 - Introduction to Business

**3 Credit Hours
(Fall)**

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

**3 Credit Hours
(Fall)**

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

TAX 2000 - Federal Income Tax: Individual

**3 Credit Hours
(Spring)**

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 27

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Accounting Technology Management (CCC) (ACCM)
Fall Semester
ACG 2001 - Accounting I 3 Credit Hours
CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours
GEB 1011 - Introduction to Business 3 Credit Hours
MTB 1103 - Business Mathematics 3 Credit Hours
Total Semester Hours: 12
Spring Semester
ACG 2011 - Accounting II 3 Credit Hours
ACG 2450 - Computer Applications for Accounting 3 Credit Hours
ACG 2071 - Managerial Accounting 3 Credit Hours
ACO 1806 - Payroll Accounting 3 Credit Hours
TAX 2000 - Federal Income Tax: Individual 3 Credit Hours
Total Semester Hours: 15
Total Program Hours: 27

Applied Management (AAS)

Admission Program of Study Code APMG

State CIP Code 0552020107

The A.A.S. degree in Applied Management examines the ways in which management skills are used in a variety of businesses. Students interested in a broad range of technical fields will be able to prepare for leadership roles in the Business Management and Administration professions.

General Education

Select one course from each category; see the AAS Degree General Education Requirements section of catalog for specific course listings:

- _____ LIN 1670 - LIN 1670 - Writing and Grammar or higher Communication Course **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ MAT 1033A - MAT 1033A - Intermediate Algebra Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 12

Technical Elective Courses

Select 30 credits from the following:

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

**3 Credit Hours
(Fall)**

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

**3 Credit Hours
(Fall)**

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

**3 Credit Hours
(Spring)**

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

**3 Credit Hours
(Spring)**

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

**3 Credit Hours
(Fall, Spring)**

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

**3 Credit Hours
(Spring)**

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

**3 Credit Hours
(Fall)**

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

_____ Other Approved College Credits (Requires Dept. Chair Approval)

Total Technical Elective Credits Required: 30

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Applied Management (AAS) - (XXXX)
First Year
Fall Semester
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
Mathematics General Education Course 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15

Spring Semester

MNA 1345 - Supervision I **3 Credit Hours**

Science General Education Course **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year**Fall Semester**

MAN 2021 - Management **3 Credit Hours**

OST 2335 - Business Communications **3 Credit Hours**

Humanities General Education Course **3 Credit Hours**

Social Science General Education **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MAN 2300 - Personnel Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

AS Degree General Education Requirements

All A.S. degree programs at NWF State College require a minimum of 18 college credits in general education. **Unless otherwise specified in the program requirements**, students must complete one course from each of the following categories to meet general education requirements.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options (designated with ♦) in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social Sciences. The A.S. degree programs provide flexibility for entering the job market or continuing education. Students who take general education courses are guaranteed transfer of those courses when continuing their education within the Florida College and University System.

NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA and AS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

Communications: 3

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

A minimum grade of "C" in each Communications course is required for general education credit.

ENC 1101 - English Composition I

**3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)**

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Any other AA General Education Communications Course
 - ♦ **Core General Education**
 - ▲ **Technology-Across-the Curriculum**
 - ¶ **Writing requirements**

Humanities: 3

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

A minimum grade of "C" in Humanities courses is required for general education credit.

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ◆ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ◆ † ◆ ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Any other AA General Education Humanities course with the † symbol or any General Education Humanities course AND another course with the † symbol.
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Mathematics: 3

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

All Mathematics courses listed below meet Mathematics requirements outlined in FAC Rule 6A-10.030.

A minimum grade of "C" in Mathematics courses is required for general education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):

Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 123 or higher on the math section of the PERT OR
- (2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
- (3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Mathematics course
- ♦ **Core General Education**

Natural Sciences: 3

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Natural Science course
- ♦ **Core General Education**

Social Sciences: 3

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

A minimum grade of "C" in courses with the ¶ symbol is required for general education credit.

AMH 2020 - American History II

**3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)**

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading

achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ◆ ◆
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ◆ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

◆ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ◆
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ◆ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of

"C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ◆

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ◆ ◆

(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Social Science course
 - ◆ **Core General Education**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Additional General Education Credits: 3

ASL 1140 - American Sign Language I

4 Credit Hours ◆

(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college

resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills –

listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- _____ - Any other AA General Education course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ❖ **International and/or diversity focus**

Total AS General Education Credits Required: 18

Footnote Legend

Symbol	Description
♦	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.
▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.
†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
¶	Courses listed with this symbol meet writing requirements outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AS Degree Checklist:

- Have you completed a minimum of 18 credit hours in the following areas?
 - 3 hours in Communications – ("C" or better)
 - 3 hours in Humanities – ("C" or better)
 - 3 hours in Social Sciences
 - 3 hours in Mathematics ("C" or better)
 - 3 hours in Natural Sciences
 - 3 Additional hours in General Education Credits
- Have you completed the required Core and Technical Elective course work for your A.S. degree?
- Have you completed at least 25% of the total number of credits for your A.S. degree at NWF State College?
- Have you met the minimum 2.0 GPA requirements for the A.S.?

Audio Technology (Recording Arts) (CCC)

Admission Program of Study Code ATRA
State CIP Code 0650060209

Students who successfully complete this program may apply these credits to the Music Production Technology (AS) degree (State CIP Code 1650091300).

Core Courses

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

- _____ Other Approved College Credits (MUL, MUM, MUN, MUS, MUT, MVB, MVK, MVP, MVS, MVV, MVW) **3 Credit Hours**

Total Program Credits Required: 15

Business Administration (AS)

Admission Program of Study Code BADM
State CIP Code 1552020102

Students who successfully complete selected courses from this program of study may be eligible to receive the Business Management (CCC) (State CIP Code 0552070101) and/or Business Specialist (Marketing) (CCC) (State CIP Code 0552020103) college credit certificates.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

**3 Credit Hours
(Spring)**

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1011 - Introduction to Business

**3 Credit Hours
(Fall)**

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

**3 Credit Hours
(Fall)**

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

3 Credit Hours
(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash

discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours (Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Administration (AS) (BADM)
First Year
Fall Semester
ACG 2001 - Accounting I 3 Credit Hours
GEB 1011 - Introduction to Business 3 Credit Hours
CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
Mathematics General Education Course 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 2011 - Accounting II 3 Credit Hours
BUL 2241 - Business Law I 3 Credit Hours

ECO 2013 - Economics I **3 Credit Hours** ♦

Science General Education Course **3 Credit Hours**

Additional General Education Hours **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

MAN 2021 - Management **3 Credit Hours**

Humanities General Education Course **3 Credit Hours**

Social Science General Education Course **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ENC 2210 - Technical Report Writing **3 Credit Hours**

ACG 2071 - Managerial Accounting **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Business Development and Entrepreneurship (CCC)

Admission Program of Study Code BMDE

State CIP Code 0552070306

Students who successfully complete this certificate may be eligible to receive credits towards the Business Administration (AS) degree (State CIP Code 1552020102).

Core Courses

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

BUL 2241 - Business Law I

3 Credit Hours (Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ENT 2931 - Selected Studies in Entrepreneurship

1 Credit Hour (Spring)

In this course, topics of current interest are presented in group instruction.

GEB 1011 - Introduction to Business

3 Credit Hours (Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours (Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours (Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours (Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours (Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SBM 2000 - Small Business Management

3 Credit Hours (Spring)

This course provides students the opportunity to learn hands-on technical applications regarding entrepreneurship. It is designed for the student who is interested in the ownership and management of a small business enterprise.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 25

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Development and Entrepreneurship (CCC) (Program Code Needed)**Fall Semester**

ACG 2001 - Accounting I **3 Credit Hours**

GEB 1011 - Introduction to Business **3 Credit Hours**

GEB 2430 - Business Ethics **3 Credit Hours**

MAN 2021 - Management **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

BUL 2241 - Business Law I **3 Credit Hours**

MAN 2300 - Personnel Management **3 Credit Hours**

OST 2335 - Business Communications **3 Credit Hours**

SBM 2000 - Small Business Management **3 Credit Hours**

ENT 2931 - Selected Studies in Entrepreneurship **1 Credit Hour**

Total Semester Hours: 13

Total Program Hours: 25

Business Management (CCC)

Admission Program of Study Code BMGC

State CIP Code 0552070101

Students who successfully complete this certificate may be eligible to receive credits toward the Business Administration (AS) degree (CIP Code 1552020102).

Core Courses**ACG 2001 - Accounting I**

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 12

Technical Elective Courses

Select 12 credits from the following:

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments

as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours (Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours (Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours (Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 12

Total Program Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Management (CCC) (BMGC)**Fall Semester**

ACG 2001 - Accounting I **3 Credit Hours**

CGS 1100 - Microcomputer Applications **3 Credit Hours ▲** or CGS 1570 - Computer Applications for Business **3 Credit Hours**

GEB 1011 - Introduction to Business **3 Credit Hours**

MAN 2021 - Management **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 24

Business Specialist (Marketing) (CCC)

Admission Program of Study Code BMKC

State CIP Code 0552020103

Students who successfully complete this certificate may be eligible to receive credits toward the Business Administration (AS) degree (CIP Code 1552020102).

Core Courses**MAR 2011 - Introduction to Marketing**

3 Credit Hours

(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

**3 Credit Hours
(Fall)**

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

**3 Credit Hours
(Spring)**

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

**3 Credit Hours
(Spring)**

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Specialist (Marketing) (CCC) (BUSS)
Fall Semester
MAR 2011 - Introduction to Marketing 3 Credit Hours
MKA 2021 - Professional Selling 3 Credit Hours
Total Semester Hours: 6
Spring Semester
MKA 2041 - Retail Management 3 Credit Hours

MKA 2511 - Introduction to Advertising 3 Credit Hours
Total Semester Hours: 6
Total Program Hours: 12

Chef's Apprentice (CCC)

Admission Program of Study Code: CHEF

State CIP Code 0612050302

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1202L - Food Production I

3 Credit Hours
(Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Chef's Apprentice (CCC) (CHEF)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
Total Semester Hours: 6
Spring Semester
FSS 1202L - Food Production I 3 Credit Hours
FSS 1001 - Culinary Techniques 3 Credit Hours
Total Semester Hours: 6
Total Program Hours: 12

Child Care Center Management Specialization (CCC)

Admission Program of Study Code CCCM
State CIP Code 0419070906

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

Total Program Credits Required: 12

Child Development Early Intervention (CCC)

Admission Program of Study Code CDEI
State CIP Code 0419070904

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Total Core Credits Required: 36

Total Program Credits Required: 36

CNC Machinist/Fabricator (CCC)

Admission Program of Study Code CNMM
State CIP Code 0648051002

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS) degree (State CIP Code 1615000001).

Core Courses

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

CNC Machinist/Fabricator (CCC) (CNMM)
First Year
Fall Semester
ETD 2364C - SolidWorks I 3 Credit Hours
PMT 1250C - Introduction to CNC Machining 3 Credit Hours - Offered at Night Only
Total Semester Hours: 6
Spring Semester
PMT 2261C - CNC Machining I 3 Credit Hours - Offered at Night Only

Total Semester Hours: 3
Second Year
Fall Semester
PMT 2262C - CNC Machining II 3 Credit Hours - Offered at Night Only
Total Semester Hours: 3
Total Program Hours: 12

Computer Programmer (CCC)

Admission Program of Study Code CMPG
State CIP Code 0511020200

Students who successfully complete this certificate may be eligible to receive credits towards the Computer Programming and Analysis (AS) degree (State CIP Code 1511020101).

Core Courses

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

**3 Credit Hours
(Fall)**

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

**3 Credit Hours
(Spring)**

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

**3 Credit Hours
(Spring)**

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

**3 Credit Hours
(Spring)**

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 21

Technical Elective Courses

Select 12 credits from the following:

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 12

Total Program Credits Required: 33

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programmer (CCC) (CMPG)
Fall Semester COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours CGS 2820 - Web Design 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 9
Spring Semester COP 2220 - Programming in C 3 Credit Hours COP 2010 - Visual Basic Programming 3 Credit Hours COP 2800 - Introduction to Java Programming 3 Credit Hours COP 2700 - Introduction to SQL 3 Credit Hours COP 2224 - Programming in C++ 3 Credit Hours Total Semester Hours: 15
Summer Semester COP 2805 - Advanced Java Programming 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 12

Total Program Hours: 33

Computer Programming and Analysis (AS)

Admission Program Objective Code CPRO

State CIP Code 1511020101

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Computer Programmer (CCC) (State CIP Code 0511020200) and/or Computer Programming Specialist (CCC) (State CIP Code 0511020103).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Science **3 Credit Hours**
- _____ Social Science **3 Credit Hours**
- _____ General Education Electives **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 2820 - Web Design

3 Credit Hours

(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours

(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of

modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins

with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programming and Analysis (AS) (CPRO)	Companion Certificates*	
First Year	CMPG	CMPS
Fall Semester COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Humanities General Education 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15	√ 	√
Spring Semester COP 2220 - Programming in C 3 Credit Hours COP 2224 - Programming in C++ 3 Credit Hours COP 2800 - Introduction to Java Programming 3 Credit Hours MAD 2104 - Introduction to Discrete Mathematics 3 Credit Hours Science General Education Course 3 Credit Hours Total Semester Hours: 15	√ √ √ 	 √ √
Second Year		
Fall Semester CGS 2820 - Web Design 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Social Science General Education Course 3 Credit Hours Mathematics General Education Course 3 Credit Hours	√ 	√

Total Semester Hours: 15		
Spring Semester COP 2010 - Visual Basic Programming 3 Credit Hours COP 2228 - Advanced Programming in C++ 3 Credit Hours COP 2700 - Introduction to SQL 3 Credit Hours Additional General Education Credits 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15	√ √	 √
Total Program Hours: 60		
* Courses with √ can also be used in the Companion Certificate indicated: CMPG - Computer Programmer (CCC) CMPS - Computer Programming Specialist (CCC)		

Computer Programming Specialist (CCC)

Admission Program of Study Code CMPS
State CIP Code 0511020103

Students who successfully complete this certificate may be eligible to receive credits towards the Computer Programming and Analysis (AS) degree (State CIP Code 1511020101).

Core Courses

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 12

Technical Elective Courses

Select 6 credits from the following:

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 6

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programming Specialist (CCC) (CMPS)
Fall Semester COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours CGS 2820 - Web Design 3 Credit Hours Total Semester Hours: 6
Spring Semester COP 2224 - Programming in C++ 3 Credit Hours COP 2800 - Introduction to Java Programming 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 12
Total Program Hours: 18

Correctional Officer (Basic) (CCP)

Admission Program of Study Code CORR
State CIP Code 0743010200

Entry into Criminal Justice Certificate Programs requires meeting the standards as established by the Criminal Justice Standards and Training Commission and the Florida Department of Law Enforcement for employment. A copy of these requirements will be furnished by the Public Safety Division at NWF State College.

Core Courses

CJK 0300 - Introduction to Corrections

33 Clock Hours
(Offered as needed)

This course introduces students to the legal and ethical responsibilities of a correctional officer. Legal terms and definitions are explained. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the

awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0305 - CJSTC Communications

42 Clock Hours (Offered as needed)

This course covers the entire report writing process. Topics include interview and interrogation, interpersonal communication, and practical exercises. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0310 - Officer Safety

12 Clock Hours (Offered as needed)

Correctional officer safety procedures are learned. Students will learn to identify potential hazards and learn how to safely respond. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0315 - Facility and Equipment

12 Clock Hours (Offered as needed)

Students learn the appropriate procedures for inspecting a correctional facility and equipment. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0320 - Intake and Release

18 Clock Hours (Offered as needed)

Students learn the appropriate procedures for admitting and releasing inmates in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0325 - Supervising in a Correctional Facility

42 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for supervising inmates in a correctional facility. They also learn to detect crimes and rule violations in various correctional facility settings. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0330 - Supervising Special Populations

21 Clock Hours
(Offered as needed)

Students learn how to identify and supervise special population groups, such as threat groups, juveniles, elderly, and mentally ill inmates. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0335 - Responding to Incidents and Emergencies

18 Clock Hours
(Offered as needed)

Students learn how to identify and respond to situations involving escapes, riots, bomb threats, fires, and medical emergencies in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0051 - Defensive Tactics

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0040 - CMS Firearms

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0340 - Corrections CCP Physical Fitness

30 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 438

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Correctional Officer (Basic) (CCP) (CORR)
Fall Semester
CJK 0300 - Introduction to Corrections 33 Clock Hours
CJK 0305 - CJSTC Communications 42 Clock Hours
CJK 0310 - Officer Safety 12 Clock Hours
CJK 0315 - Facility and Equipment 12 Clock Hours
CJK 0320 - Intake and Release 18 Clock Hours
CJK 0325 - Supervising in a Correctional Facility 42 Clock Hours
CJK 0330 - Supervising Special Populations 21 Clock Hours
CJK 0335 - Responding to Incidents and Emergencies 18 Clock Hours
CJK 0031 - CMS First Aid for Criminal Justice Officers 48 Clock Hours
CJK 0040 - CMS Firearms 81 Clock Hours
CJK 0051 - Defensive Tactics 81 Clock Hours
CJK 0340 - Corrections CCP Physical Fitness 30 Clock Hours
Total Semester Clock Hours: 438
Total Program Clock Hours: 438

Criminal Justice Technology (AS)

Admission Program of Study Code CJTC
State CIP Code 1743010302

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- PSY 2012 Psychology **3 Credit Hours** ♦
- SYG 2000 Sociology **3 Credit Hours** ♦ ♦

Total General Education Credits Required: 18

Core Courses

CCJ 1010 - Introduction to Criminology

3 Credit Hours
(Spring)

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; theory development in criminology, crime rates and trends, victimology and particular crime pattern areas.

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CJC 2000 - Introduction to Corrections

3 Credit Hours
(Fall)

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; and problems of rehabilitation are covered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJE 2300 - Police Administration and Organization

3 Credit Hours
(Fall, Spring, Summer)

This course presents the principles of organization and administration in law enforcement including functions and activities, planning and research, public relations, personnel and training, inspection and control, records and communications and custody.

CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

Total Core Credits Required: 21

Technical Elective Courses

Select 21 credits from the following:

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CCJ 1941 - Internship – Criminal Justice

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Permission of the instructor

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CCJ 2509 - Introduction to Gangs and Crime

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of street gangs, the social factors, and the general classifications necessary for the law enforcement, corrections, and public safety professional. This course explores the history, membership, activity, current trends, and influence of street gangs. Students will be challenged to define community-based solutions and strategies to combat the criminal activity associated with street gangs.

CCJ 2934 - Special Topics in Criminal Justice

2 Credit Hours
(Fall, Spring, Summer)

This course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

*This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CJE 1642C - Introduction to Crime Scene Technology

3 Credit Hours
(Fall, Spring, Summer)

This course explains and discusses the principals and theories in crime scene technology. The course covers specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence, gunshot residue, blood splatter and bodies.

CJE 1735 - Unmanned Vehicle Legal Requirements and Case Law

3 Credit Hours
(Fall)

This course examines the legal requirements and limits of drone operation by law

enforcement. The course will also introduce the student to case studies, guidelines, laws, and protocols for law enforcement operations in contrast to use by private citizens. Additionally, this case will examine and define expectations of privacy, based on case law as set forth by the United States Supreme Court. Case studies and Supreme Court decisions from the last century based on the fourth amendment and due process of law, will be studied for class projects. Each student will be required to submit a research paper on a specific related topic as assigned by the instructor.

CJE 2330 - Ethics in Criminal Justice

3 Credit Hours
(Fall, Spring, Summer)

This course is a detailed exploration of ethical issues in Criminal justice with special emphasis on morality and the law, human behavior, and ethical decision making in law enforcement, corrections and the courts.

CJE 2400 - Police and Community Relations

3 Credit Hours
(Fall, Spring, Summer)

A study of the relationship of the Justice Administration agencies to the surrounding community. Examines the effect of social change and the consequences that it produces upon law enforcement, corrections, and the courts.

CJE 2600 - Criminal Investigations

3 Credit Hours
(Offered as needed)

Fundamentals of investigation; duties and responsibilities of the detective; interrogation techniques; search and techniques of protecting the crime scene; collection and preservation of evidence; modus operandi systems; scientific aids and other sources of information; court preparation and case follow-up.

CJE 2736 - Law Enforcement Applications of Unmanned Vehicles for 21st Century

3 Credit Hours
(Fall)

This course will introduce students to current law enforcement uses and abilities of unmanned vehicle systems, along with new and developing applications for exclusive use in law enforcement actions. Students will understand and explain the definitions of privacy expectations as related to law enforcement actions governed by the fourth amendment. Students will be required to participate in a course project, in which students will develop, justify and define futuristic uses on drone technologies in the law enforcement field. In this team project, a presentation is required to defend the positions and uses of drone technologies as related in the project results.

CJJ 1002 - Juvenile Delinquency

3 Credit Hours
(Offered as needed)

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJL 2130 - Criminal Evidence and Procedure

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of criminal procedure particularly applied to search and seizure and evaluation of evidence.

FFP 1801 - Introduction to Emergency Management Administration

3 Credit Hours
(Offered as needed)

This course will discuss emergency management practices and how they relate to natural and man-made disasters. It is designed to help the student develop an understanding of overall emergency management principles, practices, and standards in the local, national, and international environments.

FFP 2820 - Emergency Preparedness

3 Credit Hours
(Offered as needed)

This course teaches all aspects of emergency preparedness and planning related to natural and man-made disasters, and basic principles of emergency management. Planning concepts and the planning process will be discussed.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Total Technical Elective Credits Required: 21

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Criminal Justice Technology (AS) (CJTC)

First Year

Fall Semester

CCJ 1020 - Introduction to Criminal Justice **3 Credit Hours**

ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶

Mathematics General Education **3 Credit Hours**

Technical elective **3 Credit Hours**

Technical elective **3 Credit Hours**

Semester Total Hours: 15

Spring Semester

CCJ 1010 - Introduction to Criminology **3 Credit Hours**

CJC 2000 - Introduction to Corrections **3 Credit Hours**

PSY 2012 - Psychology **3 Credit Hours** ♦

Humanities General Education **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Second Year

Fall Semester

CJL 1100 - Criminal Law **3 Credit Hours**

CJL 2500 - Courts and the Judicial Process **3 Credit Hours**

SYG 2000 - Sociology **3 Credit Hours** ♦ ♦

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Spring Semester

CJE 2300 - Police Administration and Organization **3 Credit Hours**

CJJ 1002 - Juvenile Delinquency **3 Credit Hours**

CJL 1400 - Criminal Procedure **3 Credit Hours**

Natural Sciences **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Total Program Hours: 60

Culinary Arts (CCC)

Admission Program of Study Code: CULA

State CIP Code 0612050301

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

3 Credit Hours
(Spring)

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

3 Credit Hours (Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours (Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

3 Credit Hours (Summer)

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 2100 - Food Plans and Menu Preparation

3 Credit Hours (Spring)

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2242L - International and Regional Cuisine

**3 Credit Hours
(Spring)**

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

**3 Credit Hours
(Summer)**

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2500 - Food and Beverage Cost Control

**3 Credit Hours
(Fall)**

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2942 - Culinary Internship

**3 Credit Hours
(Spring)**

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L, HFT 1000, and FSS 1221L with a grade of "D" or better.

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry

terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 36

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Arts (CCC) (CULA)
First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours FSS 2500 - Food and Beverage Cost Control 3 Credit Hours Total Semester Hours: 9
Spring Semester FSS 1202L - Food Production I 3 Credit Hours FSS 1120 - Food and Beverage Purchasing 3 Credit Hours FSS 1001 - Culinary Techniques 3 Credit Hours FSS 2100 - Food Plans and Menu Preparation 3 Credit Hours Total Semester Hours: 12
Summer Semester FSS 1246L - Baking and Pastries I 3 Credit Hours FSS 2251 - Food and Beverage Management 3 Credit Hours Total Semester Hours: 6
Second Year
Fall Semester FSS 1221L - Food Production II 3 Credit Hours

Total Semester Hours: 3
Spring Semester FSS 2942 - Culinary Internship 3 Credit Hours FSS 2242L - International and Regional Cuisine 3 Credit Hours Total Semester Hours: 6
Total Program Hours: 36

Culinary Arts Management Operations (CCC)

Admission Program of Study Code: CULM

State CIP Code 0612050401

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1202L - Food Production I

3 Credit Hours
(Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours (Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Arts Management Operations (CCC) (CULM)

First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours Total Semester Hours: 6
Spring Semester FSS 1202L - Food Production I 3 Credit Hours FSS 1001 - Culinary Techniques 3 Credit Hours Total Semester Hours: 6
Summer Semester FSS 2251 - Food and Beverage Management 3 Credit Hours Total Semester Hours: 3
Second Year
Fall Semester FSS 1221L - Food Production II 3 Credit Hours Total Semester Hours: 3
Total Program Hours: 18

Culinary Management (AS)

Culinary Management

Admission Program of Study code: CUL

State CIP Code 1612050401

The Emerald Coast is one of the top tourist beach destinations in the U.S. and tourism is one of the leading industries in Northwest Florida. Northwest Florida State College's Culinary A.S. Degree Program is designed to support the tourism industry by preparing students for employment in the culinary and restaurant industry. Students will gain employability skills and knowledge through classroom instruction and culinary lab experience in the following courses Sanitation and Safety; Maintenance and Operation of Equipment; Methods of Preparation and Cooking; Perform Different Types of Food Services; Nutrition; Baking; and Dining Room and Beverage Management. Students will also receive training in communications, leadership and human relations skills. This program focuses on broad,

transferable skills and stresses understanding and demonstration of elements of the culinary industry. Careers include culinary manager, food and beverage manager, pantry cook, executive chef and many more.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in :

Chef's Apprentice (CCC)

Culinary Arts (CCC)

Culinary Arts Management Operations (CCC)

General Education

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- PHI 2600 - Introduction to Ethics **3 Credit Hours** ♦ † ¶
- MAC 1105 - College Algebra **3 Credit Hours** ♦ , STA 2023 - Statistics **3 Credit Hours** ♦ , MGF 1106 - Practical Applications of Mathematics **3 Credit Hours** ♦ , or higher mathematics course
- BSC 1005 - General Biology **3 Credit Hours** ♦ or PHY 1020 - Physical Science **3 Credit Hours** ♦ or CHM 1020 - Chemical Science **3 Credit Hours** ♦
- ECO 2013 - Economics I **3 Credit Hours** ♦
- HUN 2201 - Nutrition **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

**3 Credit Hours
(Spring)**

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

**3 Credit Hours
(Fall)**

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

**3 Credit Hours
(Fall)**

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

**3 Credit Hours
(Summer)**

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 2100 - Food Plans and Menu Preparation

**3 Credit Hours
(Spring)**

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2242L - International and Regional Cuisine

3 Credit Hours
(Spring)

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

FSS 2500 - Food and Beverage Cost Control

3 Credit Hours
(Fall)

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2942 - Culinary Internship

3 Credit Hours
(Spring)

The Program Director has the discretion to provide override approval as it relates to the waiver of required

program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine- tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L , HFT 1000 , and FSS 1221L with a grade of "D" or better.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SLS 1101 - College Success

3 Credit Hours (Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Management (AS) (CUL)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶

SLS 1101 - College Success **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

FSS 1202L - Food Production I **3 Credit Hours**

FSS 1120 - Food and Beverage Purchasing **3 Credit Hours**

FSS 1001 - Culinary Techniques **3 Credit Hours**

MAC 1105 - College Algebra **3 Credit Hours ♦** , STA 2023 - Statistics **3 Credit Hours ♦**, or MGF 1106 - Practical Applications of Mathematics **3 Credit Hours ♦**

Total Semester Hours: 12

Summer Semester

BSC 1005 - General Biology **3 Credit Hours ♦** , PHY 1020 - Physical Science **3 Credit Hours ♦** or CHM 1020 - Chemical Science **3 Credit Hours ♦**

FSS 1246L - Baking and Pastries I **3 Credit Hours**

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 9

Second Year

Fall Semester

FSS 2500 - Food and Beverage Cost Control **3 Credit Hours**

FSS 1221L - Food Production II **3 Credit Hours**

ECO 2013 - Economics I **3 Credit Hours ♦**

HUN 2201 - Nutrition **3 Credit Hours**

PHI 2600 - Introduction to Ethics **3 Credit Hours ♦ † ¶**

Total Semester Hours: 15

Spring Semester

FSS 2942 - Culinary Internship **3 Credit Hours**

FSS 2100 - Food Plans and Menu Preparation **3 Credit Hours**

FSS 2242L - International and Regional Cuisine **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours
Total Semester Hours: 12
Total Program Hours: 60

Cyber Security (AS)

Admission Program Objective Code CYBE

State CIP Code 1511100307

Students who successfully complete selected courses from this program of study may be eligible to receive the Database and E-Commerce Security (CCC) certificate (State CIP Code 0511100311).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Natural Sciences **3 Credit Hours**
- ____ Social Sciences **3 Credit Hours**
- ____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CAP 2134C - Database Security

3 Credit Hours
(Spring)

This course is designed to provide the student with an understanding of database security concepts and practices. The objective of the course is to provide hands-on instruction in various database tasks that relate to securing the confidentiality, integrity and availability of information that is stored in a database. The student will be able to perform administrative tasks in different database management systems, as well as manage database user profiles, privileges, and roles. Different database application security models will be explored, as will the security advantages of utilizing virtual private databases. Finally, the process of database auditing will be explored, including auditing methods using various database management systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 2660

▲ Technology-Across-the-Curriculum Course.

CET 2660 - Network Security

3 Credit Hours
(Fall, Spring)

This course provides an in-depth study of network security concepts and techniques. Students examine theoretical concepts that make computer network security unique. This course provides a practical, hands-on approach when examining networking security techniques. Students examine different network strategies, explore the advancement of network implementation, and study timeless problem solving strategies. The course is also intended to assist with preparation for the CompTIA Security+ certification.

Prerequisite(s): Knowledge of networking basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2880C - Digital Forensics Fundamentals

3 Credit Hours
(Fall and Spring)

This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. the course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 2352C - Ethical Hacking Fundamentals

3 Credit Hours
(Fall)

This course is designed to provide the student with an understanding of the techniques and methodologies of security penetration testing. This course provides hands-on instruction using the various tools and methods that security professionals use to analyze an information system in order to discover vulnerabilities and protect against information loss, cyber-terrorism, and corporate espionage. The student will be introduced to fundamental security testing concepts, gain practical knowledge of computer programming, learn how to properly document a security test, and explore the legal and ethical ramifications of penetration testing. Students will also learn how to apply the appropriate countermeasures in order to reduce the risk that an organization faces.

Prerequisite(s): CTS 1134 is required. Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1106 - Fundamentals of UNIX

3 Credit Hours
(Spring)

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in administration and certification.

Prerequisite(s): Knowledge of networking, basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1134 - Network Foundations

3 Credit Hours
(Fall)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2314C - Network Defense and Countermeasures

3 Credit Hours
(Fall)

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure and implement secure networks. Security topics covered in this course include firewalls, Intrusion Detection Systems (IDS), Virtual Private Networks (VPN) and policy creation using the Windows Operating

System (OS), Transmission Control Protocol/Internet Protocol (TCP/IP) packet and signature analysis. The student will get hands-on instruction installing the network defense mechanisms and countermeasure applications. Software will be used for collecting, monitoring and auditing various activities; students will analyze threats and intrusions.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

CET 1854C - Introduction to Wireless Technology

3 Credit Hours

(Fall)

This course teaches key wireless networking topics, including wireless technology and architecture network design, types of wireless networks, and applications. Special focus on technical matters, wireless communication products, wireless networking products, and wireless LANS products. It is recommended that all students have a least a basic knowledge of networking, including protocol, the OSI module, and TCIP/IP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2615C - LAN Switching and Wireless

3 Credit Hours

(Spring)

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study LAN Switching, VLANs, OSPF, EIGRP, VTP, classless routing and Access Lists.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2620C - Accessing the WAN

3 Credit Hours

(Spring)

This course introduces the student to advanced router configurations and network design. This is also the last of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study WAN technology and design, PPP, ISDN, Frame Relay, and network management.

Prerequisite(s): CET 2615C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2685C - Fundamentals of Network Security

3 Credit Hours
(Spring)

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CISCO Security Specialist certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2881C - Digital Forensics II

3 Credit Hours
(Spring)

Digital Forensics II builds upon the foundational knowledge learned in digital forensics fundamentals. Students will utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cell phones, smart phones, mp3 players, gps), and devices such as dvr's and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the accessdata certified examiner (ace) examination.

Prerequisite(s): CET 2880C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2891C - Wireless Network Security Certification

3 Credit Hours
(Offered as needed)

This course prepares students to secure wireless networks and protect valuable data from intruders. The following subjects are covered: intrusion tools and techniques, detection systems, WPA/WPA2/802.11i security, enterprise wireless gateways, encryption gateways, secure wireless bridging, and wireless VPN routers. This course prepares students for the compTIA wireless certification exam.

Prerequisite(s): CET 1854C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2892C - Advanced Network Security

**3 Credit Hours
(Spring)**

This course examines advanced network security topics including, but not limited to, advanced topics in integration of hardware firewalls, advanced topics in Intrusion Detection Systems (IDS), advanced topics in Internet Protocol-security (IPSec), and advanced topics in Virtual Private Networking (VPN) in network security design. Students will implement designs using equipment in a laboratory setting.

Prerequisite(s): CET 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2940 - Computer Engineering Internship

**1 Credit Hour
(Offered as needed)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CGS 2544 - Advanced Database Concepts

**3 Credit Hours
(Summer)**

The aim of this course is to explore advanced database concepts including an advanced exploration of data modeling and the design and implementation of relational databases. This course will extend the students' understanding of advanced principles and techniques used in the design and implementation of modern database systems and explore database problems and potential solutions.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Cyber Security (AS) (CYBE)
First Year
Fall Semester CET 2660 - Network Security 3 Credit Hours CTS 1134 - Network Foundations 3 Credit Hours CGS 2541 - Introduction to Database Concepts 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ General Education Course 3 Credit Hours Total Semester Hours: 15
Spring Semester CET 2880C - Digital Forensics Fundamentals 3 Credit Hours CTS 1106 - Fundamentals of UNIX 3 Credit Hours Science General Education Course 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester CTS 2314C - Network Defense and Countermeasures 3 Credit Hours CIS 2352C - Ethical Hacking Fundamentals 3 Credit Hours Social Science General Education 3 Credit Hours Mathematics General Education Course 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15

Spring Semester

COP 1000 - Introduction to Programming Concepts and Logic **3 Credit Hours**

CAP 2134C - Database Security **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Dental Assisting (CCP)

Admission Program of Study Code DENT

State CIP Code 0351060112

Basic Skills Requirements: The student must be exempt or attain a **10th grade level** on each section of the TABE exam: Math, Language and Reading.

This program is a Selective Admission program subject to additional program policies and requirements stipulated in the "Dental Assisting Student Handbook." The admission criteria and process, as well as some course numbers and credits are subject to change; students should contact the Dental Assisting program office for the most current information.

The program in dental assisting is accredited by the Commission on Dental Accreditation [*and has been granted the accreditation status of "approval with reporting requirements, with intent to withdraw August 2020"*]. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: <http://www.ada.org/en/coda>.

Students who successfully complete this program and pass the Dental Assisting National Board (DANB) Certificate (CDA) may apply 21 credits towards the Technical Elective requirements for the Health Services Management (AS) degree (State CIP Code 135070100).

Core Courses**DEA 0020 - Pre-Clinical Procedures Theory**

60 Clock Hours

(Offered as needed)

This course is designed to provide an introduction to the dental assisting profession to include orientation to four handed dentistry and general dental office procedures including, but not limited to basic principles of disease prevention, patient data collection and assessment, and instrumentation. Emphasis is on adhering to safety guidelines as specified by OSHA.

Corequisite(s): DEA 0020L.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DEA 0020L - Pre-Clinical Practice Lab

90 Clock Hours
(Offered as needed)

This is a comprehensive chair side competency based course. The course provides the skills practice necessary for dental assisting students entering four handed dentistry practice including but not limited to infection control, taking and recording vital signs, assisting with operative procedures, principles of preventive dentistry, instrument identification, and use and maintenance of equipment. Emphasis is on aseptic technique and clinical competency with procedures performed in a contemporary dental practice.

Corequisite(s): DEA 0020, DES 0103L.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DEA 0130 - Oral Pathology

30 Clock Hours
(Offered as needed)

This course is a general study of the scientific and clinical concepts that include additional knowledge base necessary to the practice of dental assisting. Students will study the normal and abnormal conditions of the oral cavity such as dental caries prevention, the dental caries process and recognition of various common pathological conditions. Oral pathology, histology and embryology are included. Emphasis is on the interrelationship of the information presented with the clinical practice of dental assisting.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DEA 0803L - Clinical Practice I

150 Clock Hours
(Offered as needed)

This competency based clinical course provides a real world setting in which to integrate the laboratory and clinical skills learned in the classroom. The student receives closely supervised hands on training in chair side dental assisting through rotations at community dental offices. Progress is evaluated using predetermined competency guidelines. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 90 clinical rotation hours (minimum) must be fulfilled to successfully

complete this course.

Corequisite(s): DEA 0020, DEA 0020L.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0830 - Expanded Function Theory

30 Clock Hours
(Offered as needed)

This course introduces the dental assisting student to the dental specialty practices and more advanced clinical skills. It also provides the theory of dental specialty practice administration as it relates to the role of the dental assistant including ethical and legal ramifications. Lectures relate topics including but not limited to dental specialty procedures, instruments used in the specialty practices and duties delegated to dental assistants according to the rules and regulations of the Florida Dental Practice Act. Role playing and problem solving activities using case studies relate to duties delegated to dental assistants.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830L.

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DES 0830L - Expanded Functions Lab

60 Clock Hours
(Offered as needed)

This laboratory course accompanies the clinical practice lecture course DES 0830 and provides opportunity for students to practice application of the duties delegated to dental assistants according to the Florida Dental Practice Act. Students become more proficient in more advanced skills. Competencies containing information and behavioral objectives allow students to master each skill before advancing to the next.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830.

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DEA 0852L - Clinical Practice II

180 Clock Hours
(Offered as needed)

This course is a continuation of Clinical Practice I. It provides a real world setting for students to receive additional training in the clinical skills learned in class. Students are assigned to various offices in the community including but not limited to general dentists, oral surgeons, orthodontists, periodontists, and endodontists. Performance evaluations are utilized to measure competency and provide feedback from the local dental offices to the instructor regarding the students' competency level. Skills are strengthened in Seminar Lab. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 150 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Prerequisite(s): DEA 0803L, DES 0400

Corequisite(s): DES 0830, DES 0830L.

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DEA 0936 - Dental Assisting Seminar

60 Clock Hours
(Offered as needed)

This course is designed to provide a review of materials commonly covered on the Dental Assisting National Board (DANB) Exam. Topics include but are not limited to infection control, general chair side procedures, and radiographic technique. The seminar will provide a mock board examination, and opportunities for review, problem solving, and strengthening skills. The course also serves as an opportunity for feedback from students' Clinical Practice.

Prerequisite(s): DEA 0852L, DEA 0803L, DES 0205, DES 0205L

Corequisite(s): DEA 0803L, DES 0206L.

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DES 0103 - Dental Materials

60 Clock Hours
(Offered as needed)

This course is a comprehensive study of the theory of manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. The competency based lab that accompanies this course includes exercises to illustrate application and use of selected materials. Students will study various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, as well as acrylic plastics. Students will become familiar with various pieces of dental laboratory equipment and their uses.

Corequisite(s): DES 0103L, DEA 0020L.

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DES 0103L - Dental Materials Lab

90 Clock Hours
(Offered as needed)

This course is a comprehensive study of the manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. Emphasis is on practical application as it relates to the role of the dental assistant in the contemporary dental practice. It is a competency based lab that accompanies the theory course and includes exercises to illustrate application and uses of selected materials. Students practice the use of various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, and acrylic plastics.

Corequisite(s): DES 0103, DEA 0020L.

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DES 0205 - Dental Radiology I

60 Clock Hours
(Offered as needed)

This course is designed to introduce the theory, application and principles of radiographic exposure and processing techniques used in dentistry. Students will receive instruction including but not limited to historical data, radiation safety, exposure, processing, mounting and error prevention. Image interpretation of radiographic anatomical structures will be included.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205L.

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DES 0205L - Dental Radiology Laboratory I

60 Clock Hours
(Offered as needed)

This laboratory course assists students in radiographic performance techniques using DXTR manikins to achieve

competency prior to exposure of various patients with varied dentitions. Students practice exposing, mounting, radiographic interpretation, safe darkroom procedures, identification of landmarks and distinguishing radiographic pathology from normal landmarks. Clinical radiographic skills necessary to produce diagnostic quality radiographs including bitewings, periapical radiographs, and panoramic x-rays will be covered. Emphasis is on patient and operator safety guidelines and producing diagnostic quality radiographs.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205.

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DES 0206 - Dental Radiology Theory II

30 Clock Hours (Summer)

Students will learn to identify the normal landmarks of intraoral and extra oral images. They will also be able to demonstrate the ability to interpret x-rays and recognize and identify abnormalities on dental images. Students will learn how to discuss their finding with a dentist, without overstepping the boundaries of diagnosing, from a dental image. Students will be able to explain the differences in cancellous and cortical bone. Students will be able to use an x-ray to identify different restoration types and irregularities in those restorations. Students will be able to point and identify trauma, pulpal lesions and periapical lesions on an x-ray.

Prerequisite(s): DES 0400, DES 0205, DES 0205L, DEA0020, DEA0020L

Corequisite(s): DES 0206L

DES 0206L - Dental Radiology Laboratory II

30 Clock Hours (Summer)

This laboratory course assists students in additional radiographic performance techniques to include surveys on patients with varied dentitions. Students practice advanced radiographic exposure techniques, interpretation, additional darkroom procedures, identification of landmarks and distinguishing various radiographic pathology. Clinical radiographic skills necessary to produce diagnostic quality x-rays including bitewing, radiographs, periapical radiographs, and panoramic surveys on actual patients are implemented. Emphasis is placed on patient and operator safety guideline and producing diagnostic quality radiographs. This course will involve live patients, scheduling appointments and presenting prescriptions for x-rays from local dentist.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L, DES 0205L

Corequisite(s): DES0206

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college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0324 - Interpersonal Communications Skills

30 Clock Hours
(Offered as needed)

This course is designed to implement interpersonal and effective communication skills in the practice of dentistry. It includes team building strategies, oral and written communications skills with the correct use of terminology commonly used in dentistry. Professionalism in verbal and nonverbal communications is emphasized. Students will be introduced to the legal and ethical scope of responsibilities for dental assistants and interpersonal relations in the dental office. Providing oral health instructions and post operative instructions for patients will be introduced. Scenario-based role playing is used to augment student learning of course content.

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DES 0400 - Dental Anatomy

90 Clock Hours
(Offered as needed)

This course provides a detailed study of the orofacial and related structures of the head and neck including, but not limited to the eruption, identification and function of the human dentition, study of bony, circulatory, muscular and nervous systems of the head, neck and surrounding structures associated with the oral cavity. A brief introduction to oral histology and embryology will be included.

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DES 0501 - Dental Practice Management

60 Clock Hours
(Offered as needed)

This course includes theory and content relating to practical administrative duties performed in the dental office. Lectures and role playing activities are related to the responsibilities of the dental assistant. Topics include but are not limited to appointment scheduling, billing, collections, record keeping, clerical and dental supply inventory. Students are introduced to the use of dental practice software with hands on computer experience. Legal responsibilities, interpersonal relations, and interview skills are included.

Prerequisite(s): DES 0205, DES 0205L

Corequisite(s): DEA 0936.

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DES 0602 - Pharmacology and Dental Office Emergencies

30 Clock Hours (Offered as needed)

This course is designed to familiarize the dental assisting student with the basic concepts and considerations regarding pharmacology and pharmaceuticals used in dentistry. Topics presented include nitrous oxide monitoring, emergency procedures and protocol. Lectures will include recognition of emergency conditions in the dental office, not limited to syncope, anaphylaxis, and cardiovascular incidents. Emphasis is placed on the role of the dental assistant in the prevention and management of dental office emergencies.

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DES 0844 - Infection Control for Dental Assistants

30 Clock Hours (Offered as needed)

This course is a general study in biomedical sciences of preventive dentistry to familiarize the dental assisting student with basic principles of microbiology, basic body structures, and their functions and effects as manifested in the oral cavity. The course also covers the effects of nutrition and the role of microorganisms in dental health and blood borne pathogens.

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Total Program Hours Required: 1230

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Dental Assisting (CCP) (DENT)
Fall Semester
DEA 0020 - Pre-Clinical Procedures Theory 60 Clock Hours

DEA 0020L - Pre-Clinical Practice Lab **90 Clock Hours**

DES 0400 - Dental Anatomy **90 Clock Hours**

DES 0103 - Dental Materials **60 Clock Hours**

DES 0103L - Dental Materials Lab **90 Clock Hours**

DES 0324 - Interpersonal Communications Skills **30 Clock Hours**

DES 0844 - Infection Control for Dental Assistants **30 Clock Hours ***

Total Semester Clock Hours: 450

Spring Semester

DES 0830 - Expanded Function Theory **30 Clock Hours**

DES 0602 - Pharmacology and Dental Office Emergencies **30 Clock Hours**

DES 0830L - Expanded Functions Lab **60 Clock Hours**

DES 0205 - Dental Radiology I **60 Clock Hours**

DEA 0803L - Clinical Practice I **150 Clock Hours**

DES 0205L - Dental Radiology Laboratory I **60 Clock Hours**

DEA 0130 - Oral Pathology **30 Clock Hours**

Total Semester Clock Hours: 420

Summer Semester

DES 0206 - Dental Radiology Theory II **30 Clock Hours**

DES 0501 - Dental Practice Management **60 Clock Hours**

DEA 0936 - Dental Assisting Seminar **60 Clock Hours**

DES 0206L - Dental Radiology Laboratory II **30 Clock Hours**

DEA 0852L - Clinical Practice II **180 Clock Hours**

Total Semester Clock Hours: 360

Total Program Clock Hours: 1230

* DES0844 may be taken in Fall or Spring Semester

Digital Manufacturing Specialist (CCC)

Admission Program of Study Code DMFS
State CIP Code 0615000009

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) degree (State CIP Code 1615000001).

Core Courses

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid

prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam—Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Digital Manufacturing Specialist (CCC) (DMFS)
Fall Semester ETD 2357C - Inventor I 3 Credit Hours ETD 2364C - SolidWorks I 3 Credit Hours PMT 1203C - Introduction to Machining 3 Credit Hours - Offered at Night Only PMT 1250C - Introduction to CNC Machining 3 Credit Hours Total Semester Hours: 12
Spring Semester PMT 2261C - CNC Machining I 3 Credit Hours Offered at Night Only ETD 2371C - 3D Printing I 3 Credit Hours Total Semester Hours: 6
Summer Semester PMT 2262C - CNC Machining II 3 Credit Hours Offered at Night Only ETD 2372C - 3D Printing II 3 Credit Hours Total Semester Hours: 6
Total Program Hours: 24

Digital Media/Multimedia Authoring (CCC)

Admission Program of Study Code DMMA

State CIP Code 0609070209

Students who successfully complete this diploma may be eligible to receive credits towards the Digital Media/Multimedia Technology (AS) degree (State CIP Code 1611080102).

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours

(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 14

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Digital Media/Multimedia Authoring (CCC) (DMMA)

Fall Semester

PGY 1801C - Digital Photography I **4 Credit Hours**

GRA 1151C - Illustration I **3 Credit Hours**

Total Semester Hours: 7

Spring Semester

ART 2602C - Digital Imaging I **4 Credit Hours**

CGS 2820 - Web Design **3 Credit Hours**

Total Semester Hours: 7

Total Program Credits: 14

Early Childhood Education (AS)**Offered Online**

Admission Program Objective Code ECED

State CIP Code 1413121004

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Child Development Early Intervention (CCC) (State CIP Code 0419070904), Child Care Center Management Specialization (CCC) (State CIP Code 0419070906), Infant/Toddler Specialization (CCC) (State CIP Code 0419070907), and/or Preschool Specialization (CCC) (State CIP Code 0419070908).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours

(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EDF 1005A - Introduction to the Teaching Profession - A

3 Credit Hours
(Fall, Spring, Summer)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. This course is intended for those students that are not planning to enter a degree program leading to teacher certification. An additional fingerprinting cost may be associated with this course. If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1401 - The Family In Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Early Childhood Education (AS) (ECED)	Companion Certificates*			
First Year	CDEI	CCCM	CITS	CCPS
Fall Semester				
EEC 1001 - Introduction to Early Childhood Ed 3 Credit Hours	√	√	√	√

EEC 1309 - Early Childhood Education Foundations 3 Credit Hours	√	√		√
EEC 1201 - Infants and Toddlers 3 Credit Hours	√		√	
EEEX 2010 - Introduction to Exceptional Children 3 Credit Hours	√			
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶				
Total Semester Hours: 15				
Spring Semester				
DEP 2100 - Child Growth and Development 3 Credit Hours	√	√	√	√
EEC 1949 - Internship, Early Childhood Education 3 Credit Hours	√		√	√
EEC 1401 - The Family In Early Childhood Education 3 Credit Hours				
Mathematics General Education - 3 Credit Hours				
Total Semester Hours: 12				
Summer Semester				
Science General Education - 3 Credit Hours				
Humanities General Education - 3 Credit Hours				
Total Semester Hours: 6				
Second Year				
Fall Semester				
EEC 1601 - Assessment in Early Childhood Education 3 Credit Hours	√			
EEC 2732 - Child Nutrition, Health and Safety 3 Credit Hours	√			
EEC 1750 - Guidance for Young Children 3 Credit Hours	√			
EEC 2220 - Language and Literacy Instruction In Early Childhood Education 3 Credit Hours	√			
Additional General Education Credits - 3 Credit Hours				
Total Semester Hours: 15				
Spring Semester				

EEC 1002 - Early Childhood Program Administration 3 Credit Hours	√	√		
EDF 1005A - Introduction to the Teaching Profession - A 3 Credit Hours	√			
EEC 2222 - Math & Sci Instruction Early Child Ed 3 Credit Hours ;				
Social Science General Education - 3 Credit Hours				
Total Semester Hours: 12				
Total Program Hours: 60				
* Courses with √ can also be used in the Companion Certificate indicated: CDEI - Child Development Early Intervention (CCC) CCCM - Child Care Center Management Specialization (CCC) CITS - Infant/Toddler Specialization (CCC) CCPS - Preschool Specialization (CCC)				

Early Childhood Education, Birth through Four (BS)

Admission Program Objective Code BSEB
State CIP Code 1101312102

The Bachelor of Science in Early Childhood Education, Birth through Four is designed to prepare students to work in programs serving children ages 0-4 years. Graduates will be prepared for advancement in the Early Childhood career field. The degree offers a career ladder for students earning the Associate of Science in Early Childhood Education at NWF State College, which includes one state-mandated prerequisite courses. A.S. students will complete an additional 18 hours of General Education classes during their upper division coursework, after admission to the Early Childhood Education program. Students earning an A.A. may also enter this program after completing the state-mandated prerequisite courses. These students will complete technical classes during their upper division coursework after admission to the Early Childhood Education program. For a detailed summary of graduation requirements for this degree program, see the Bachelor of Science graduation requirement section.

Substitutions for any coursework in this program of study must be approved by the Teacher Education Program Director. Please note that some courses below may require lower division prerequisites not specified as program requirements.

Lower Division Requirements

Unless otherwise specified, select courses from each category, see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

Students entering with an A.S. or A.A.S. degree will have 18 General Education hours and will complete the remaining 18 within the B.S. in Early Childhood coursework.

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- HUM 1020 - Humanities – Introduction **3 Credit Hours** ♦ † ♦ ¶ (meets 3 hours of diversity credits)
- _____ - Core Humanities **3 Credit Hours**
- MGF 1106 - Practical Applications of Mathematics or other Core Mathematics **3 Credit Hours** ♦
- ____ - General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- WOH 1012 - World Civilization: Early Humans through Global Expansion **3 Credit Hours** ♦ ¶ ** OR WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present **3 Credit Hours** ♦ ¶ ** (meets 3 hours of diversity credits)
- SYG 2000 - Sociology **3 Credit Hours** ♦ ♦ ** (meets 3 hours of diversity credits)
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits Required: 36

State-Mandated Prerequisites

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

Total State-Mandated Prerequisite Credits Required: 3

Diversity Requirement

Within the AA or AS coursework, students must meet the state-mandated diversity requirement of 6 credit hours with an international or diversity focus.

Diversity courses: ANT 2000, ANT 2100, ARH 1000, ARH 2050, ARH 2051, ARH 2060, ARH 2402, ASL 1140, ASL 1150, ASL 2160, CHI 1120, CHI 1121, EEX 2010, FRE 1120, FRE 1121, GEA 1000, HUM 1020, HUM 2250, HUM 2700, IDS 2220, LIT 2090, LIT 2100, LIT 2120, LIT 2335, LIT 2603, PHI 2010, PHI 2600, POT 1002, REL 2300, SPN 1120, SPN 1121, SPN 2220, SPN 2221, SYG 2000.

Total Lower Division (Associate Degree) Credits Required: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements

Program Content Courses

Students entering with an A.S. or A.A.S. degree will complete 18 General Education hours within the B.S. in Early Childhood coursework. Students entering with an A.A. degree will complete 18 hours of Early Childhood technical coursework within the B.S. in Early Childhood, in accordance with a signed program of study designed by a program advisor.

DEP 2100 - Child Growth and Development

3 Credit Hours (Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEC 3213 - Teaching the Language Arts In Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on the development of language and literacy in children ages birth through age four. Emphasis will be placed on understanding the process of emergent literacy including vocabulary and language, phonological awareness, print knowledge and comprehension; and on designing a developmentally appropriate language arts program in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3227 - Art, Music, and Movement

3 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of the creative developmental process in the life of children from birth through four years old. Emphasis will be placed on the teacher's role in developing opportunities and materials for young children to express themselves creatively through music, drama, dance and two- and three-dimensional art and on providing varied opportunities for young children to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies

3 Credit Hours
(Offered as needed)

This course is designed to prepare students to teach social studies in the early childhood classroom. Emphasis is on implementing the project approach to investigate components of social studies to include: individual development and identity; people, places, and environments, technology and our world; and civic ideals and practices. The student will increase and apply knowledge and skills in the Florida Early Learning and Developmental Standards relevant to this content area.

EEC 3511 - Curriculum for Infants and Toddlers

3 Credit Hours
(Offered as needed)

The focus of this course will be on the design, implementation and evaluation of programming and curriculum that promotes growth and development of young children birth to three years old and aligns with the early learning and developmental standards. Study of typical and atypical development will be included. Emphasis will be on working effectively with families of infants and toddlers.

EEC 3524 - Professionalism/Program Development

4 Credit Hours
(Offered as needed)

Focus of this course will be on management and leadership in early childhood education programs. Topics will include mentoring adults, professional development, staff assessment, program evaluation, and child advocacy. Career options in the field of early childhood education will be explored. This course will require observing and participating in a program or agency related to early childhood education.

EEC 4404 - Families and Diversity

3 Credit Hours
(Offered as needed)

This course will focus on building positive relationships with families through communication and involvement. Focus will include developing an awareness of diversity and multicultural considerations in working with families of young children. The course will explore the role of the family and the influence of the community on the development of young children in a diverse society; and will prepare the student to work effectively with families and communities.

EEC 4421 - Teaching Math and Science in Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of how concepts, skills and attitudes in early childhood mathematics and science are developed in young children ages birth through age four. Math topics will include number sense and operations, patterns, geometry, and measurement. Science topics will include scientific inquiry, physical science, life science and earth science. Emphasis will be on the alignment of the Early Learning and Developmental Standards with a developmentally appropriate approach to teaching math and science in the early childhood classroom. This course will require observing and participating in an early childhood classroom.

EEC 4613 - Systematic Observation and Assessment

3 Credit Hours
(Offered as needed)

The focus of this course will be on understanding the purpose of child assessment, implementing developmentally appropriate practices in formal and informal child assessment, and using assessment results to support learning, to identify special needs, to evaluate programs, and to respond to program accountability requirements. A field experience is required to practice various methods of assessment in an early childhood setting.

EEC 4940 - Internship

9 Credit Hours
(Fall, Spring)

Supervised teaching in an assigned Early Childhood Education setting. Student teaching assignments will be made by the Department of Teacher Education Office. This course requires a minimum grade of "C". Current background check (fingerprinting) is required for this course.

Prerequisite(s): Upper Division standing with permission of Department Chair

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3604 - Classroom Management in Early Childhood Education

3 Credit Hours
(Offered as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

EEX 4201 - Young Children with Special Needs

3 Credit Hours
(Offered as needed)

The focus of this course will be on working with young children birth through age four in an inclusive early childhood classroom. Emphasis will be on identifying typical and atypical development, creating an inclusive early childhood learning environment, understanding special education law, developing an awareness of resources for inclusive practice to meet the needs of young children and their families.

Total Upper Division Credits Required: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Early Childhood Education, Birth through Four (BS) (BSEB) - For students admitted with an AS degree

First Year
Fall Semester EEC 3227 - Art, Music, and Movement 3 Credit Hours EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies 3 Credit Hours General Education Course 3 Credit Hours General Education Course 3 Credit Hours Total Semester Hours: 12
Spring Semester EEC 4404 - Families and Diversity 3 Credit Hours EEC 3511 - Curriculum for Infants and Toddlers 3 Credit Hours EEC 3524 - Professionalism/Program Development 4 Credit Hours EEC 3213 - Teaching the Language Arts In Early Childhood Education 4 Credit Hours Total Semester Hours: 14
Summer Semester EEX 4201 - Young Children with Special Needs 3 Credit Hours EEC 4421 - Teaching Math and Science in Early Childhood Education 4 Credit Hours General Education Course 3 Credit Hours Total Semester Hours: 10
Second Year
Fall Semester EEC 4613 - Systematic Observation and Assessment 3 Credit Hours General Education Course 2 Credit Hours General Education Course 4 Credit Hours Total Semester Hours: 12
Spring Semester

EEC 4940 - Internship **9 Credit Hours**

General Education Course **3 Credit Hours**

Total Semester Hours: 12

Total Upper Division Program Hours: 60

Early Childhood Education, Birth through Four (BSEB) - For students admitted with an AA degree

First Year

Fall Semester

EEC 3227 - Art, Music, and Movement **3 Credit Hours**

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies **3 Credit Hours**

EEC 2732 - Child Nutrition, Health and Safety **3 Credit Hours**

EEC 1201 - Infants and Toddlers **3 Credit Hours**

EEX 2010 - Introduction to Exceptional Children **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

EEC 4404 - Families and Diversity **3 Credit Hours**

EEC 3511 - Curriculum for Infants and Toddlers **3 Credit Hours**

EEC 3524 - Professionalism/Program Development **4 Credit Hours**

EEC 3213 - Teaching the Language Arts In Early Childhood Education **4 Credit Hours**

Total Semester Hours: 14

Summer Semester

EEX 4201 - Young Children with Special Needs **3 Credit Hours**

EEC 4421 - Teaching Math and Science in Early Childhood Education **4 Credit Hours**

DEP 2100 - Child Growth and Development **3 Credit Hours**

Total Semester Hours: 10

Second Year

Fall Semester

EEC 4613 - Systematic Observation and Assessment **3 Credit Hours**

EEC 1002 - Early Childhood Program Administration **3 Credit Hours**

EEC 1750 - Guidance for Young Children **3 Credit Hours**

EEX 3604 - Classroom Management in Early Childhood Education **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

EEC 4940 - Internship **9 Credit Hours**

Total Semester Hours: 9

Total Upper Division Program Hours: 60

Elementary Education (BS)**Admission Program Objective Code BSED**

State CIP Code 1101312021

The first sixty credits in the following program of study are designed to prepare students not only for the A.A. degree, but also for the General Knowledge exam and Elementary Subject Area exam of the Florida Teacher Certification Exam (FTCE).

If you plan to be an elementary school teacher and are just beginning your A.A. degree, this program of study will best prepare you for that career choice. If you have already completed your A.A. degree and some of your general education courses differ from those listed below, your A.A. degree will still meet that component of the admission process; however, you may need to complete additional coursework, independent study, or workshops to be well prepared for the FTCE Elementary Subject Area exam. A passing score on the FTCE Elementary Subject Area exam is one of the graduation requirements for this degree. For a detailed summary of graduation requirements for this degree program, see the Bachelor of Science graduation requirement section.

Courses with the "C" designation include extra hours to accommodate field experiences.

Substitutions for any coursework in this program of study must be approved by the Teacher Education Program Director. Please note that some courses below may require lower division prerequisites not specified as program requirements. Requirements for Teacher Education programs may change due to legislative mandate. Candidates should request the most current requirements from the Teacher Education Program Director.

Lower Division (Associate Degree) Courses

Specific General Education and lower division courses are recommended because these courses meet NWF State College general education requirements and cover state content competencies tested on the Elementary Education K-6 subject area section of the Florida Teacher Certification Exams (FTCE), which all students must pass before entering the final internship semester in the Bachelor of Science in Elementary Education Program.

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- HUM 1020 - Humanities – Introduction **3 Credit Hours** ♦ † ♦ ¶ recommended or other Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- MAC 1105 - College Algebra recommended or other Core Mathematics **3 Credit Hours** ♦
- MGF 1106 - Practical Applications of Mathematics recommended or other General or Core Math **3 Credit Hours** ♦
- BSC_ _____ - General Education Biological Sciences **3 Credit Hours*** (BSC1010C strongly recommended due to FTCE subject area content)
- WOH _____ - World Civilization **3 Credit Hours****
- ECO 2013 - Economics I **3 Credit Hours** ♦ **
- PHY 1020 - Physical Science **3 Credit Hours** ♦
- POS 1041 - American Government **3 Credit Hours** ♦ ¶ Ω
- AMH 2010 - American History I **3 Credit Hours** ¶ or AMH 2020 - American History II **3 Credit Hours** ♦ ¶ Ω

It is recommended that at least one physical or biological science include a lab.

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

At least 6 hours of diversity credits should be included in General Education required credits.

Total General Education Credits Required: 36

State-Mandated Prerequisite

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

Total State-Mandated Prerequisite Credits Required: 3

Additional Lower Division Coursework

AST ____ - Astronomy **3 Credit Hours**

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY ____ - Geological Science **4 Credit Hours**

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAT 1033A - Intermediate Algebra

4 Credit Hours
(Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an

introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

Total Additional Lower Division Credits Required: 21

Diversity Requirement

Within the AA or AS coursework, students must meet the state-mandated diversity requirement of 6 credit hours with an international or diversity focus.

Diversity courses: ANT 2000, ANT 2100, ARH 1000, ARH 2050, ARH 2051, ARH 2060, ARH 2402, ASL 1140, ASL 1150, ASL 2160, CHI 1120, CHI 1121, EEX 2010, FRE 1120, FRE 1121, GEA 1000, HUM 1020, HUM 2250, HUM 2700, IDS 2220, LIT 2090, LIT 2100, LIT 2120, LIT 2335, LIT 2603, PHI 2010, PHI 2600, POT 1002, REL 2300, SPN 1120, SPN 1121, SPN 2220, SPN 2221, SYG 2000, SYG 2010, WOH 1012, WOH 1022

Total Lower Division (Associate Degree) Credits Required: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Courses

Program Content Courses

EDE 4223 - Integrating Art, Music, and Physical Education

**3 Credit Hours
(Summer)**

This integrative course provides students with critical understanding of art, music, and physical education. Emphasis is placed on the effective integrative lesson planning and modeling techniques to art, music, and physical education in elementary schools. This course requires a minimum grade of "C".

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4226C - Integrated Language Arts, Social Science and Literature

3 Credit Hours
(Fall, Spring)

This course is designed to prepare candidates to teach language arts and social science in elementary classrooms. Teacher candidates will develop units of study that integrate literature, language arts, with social science content. Emphasis is on constructivist principles and methodology. Teacher candidates will plan and deliver standards-based language arts and social science lessons designed to meet the needs of diverse learners including English language learners (ELLs) and students with exceptionalities. This course requires 18 hours of field experience in a K-6 classroom setting. Current background check (fingerprinting) acceptable to the district in which the field experience will take place is required for this course. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4930C - Professional Elementary Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace. Includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3214 - Human Development and Learning

3 Credit Hours
(Summer)

This course is designed to cover the principles of learning and student development with applications to learning/teaching situations. Identification and analysis of students' academic, physical, cognitive, emotional, motivational, and social development is to be emphasized. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3430 - Measurement, Evaluation, and Assessment in Education

3 Credit Hours
(Fall, Spring)

This course studies the basic principles and methods of measurement, evaluation, and methods of test construction. Students will interpret standardized test scores, construct teacher-made tests and other classroom assessments, and evaluate portfolio and performance assessment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDG 3410C - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring)

Pre-service teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 3343 - Instructional Strategies

3 Credit Hours
(Fall, Spring)

This course provides an overview of instructional models and strategies. Emphasis is placed on principles of state standards, instructional methods, and lesson planning and instruction. Students will develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student populations. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C

EDG 4940 - Internship

9 Credit Hours
(Offered as needed)

Supervised teaching in a public or private school. Student teaching assignments will be made by the department of teacher education field placement coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing with permission of department chair.

EDE 4223, EDE 4226C, EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, LAE 4343C, MAE 3350C, RED 3309C, RED 3511C, RED 4312, RED 4519C, SCE 3350C, TSL 3081C, TSL 4140C

EEX 3070 - Methods of Inclusion and Collaboration

3 Credit Hours
(Summer)

This course examines the basic identification techniques and strategies used to promote academic and social integration and interaction of "mainstreamed" exceptional students. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

LAE 4343C - Writing Across the Curriculum

3 Credit Hours
(Offered as needed)

This course prepares pre-service teachers by developing an understanding of the foundations of writing through the use of writers workshops and instructional strategies necessary to provide adequate instruction to emergent, novice, and transitional writers. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 3350C - Principles and Methods for Teaching Mathematics K-8

3 Credit Hours
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in grades K-8. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3309C - Early and Emergent Literacy K-2

3 Credit Hours
(Fall, Spring)

This course is designed to increase the understanding of early literacy development and the conditions which promote total literacy from birth through lower elementary grades. Language theory and current research are used to shape informed practices regarding literacy development. Connections are made among all aspects of literacy learning: reading, writing, listening, speaking and attitude development. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3511C - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4312 - Integration of Assessment into Classroom Reading

3 Credit Hours
(Summer)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on integrating assessments into the curriculum to strengthen instructional strategies and student success. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): RED 3309C, RED 3511C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4519C - Diagnostic and Instructional Interventions in Reading

3 Credit Hours
(Fall, Spring)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4854C - Reading Field Experience

2 Credit Hours
(Fall, Spring)

This course provides application of knowledge of reading development to reading instruction. Emphasis is placed on increased reading proficiency for struggling students, including students with disabilities and students from diverse populations. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C, RED 4312, RED 4519C, upper division standing with permission of department chair

SCE 3350C - Principles and Methods for Teaching Science K-8

3 Credit Hours

(Fall, Spring)

This course provides techniques, methods and materials of instruction for teaching science in grades K-8. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 3081C - TESOL Issues and Practice

3 Credit Hours

(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 4140C - ESOL Methods, Curriculum and Assessment

3 Credit Hours

(Fall, Spring)

This course is designed to build on the candidate's knowledge of applied linguistics and cross cultural communication. Candidates will extend their understanding of the role of language and culture in the classroom. This course will prepare candidates for effective planning, instruction, and assessment of ELLs in the classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): TSL 3081C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

Total Upper Division Credits Required: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Elementary Education (BS) (BSED)
First Year
Fall Semester EDG 3343 - Instructional Strategies 3 Credit Hours EDG 3410C - Classroom Management, School Safety, Law, and Ethics 3 Credit Hours TSL 3081C - TESOL Issues and Practice 3 Credit Hours RED 3309C - Early and Emergent Literacy K-2 3 Credit Hours Total Semester Hours: 12
Spring Semester EDF 3430 - Measurement, Evaluation, and Assessment in Education 3 Credit Hours LAE 4343C - Writing Across the Curriculum 3 Credit Hours TSL 4140C - ESOL Methods, Curriculum and Assessment 3 Credit Hours RED 3511C - Intermediate Literacy 3-6: Reading and Thinking 3 Credit Hours Total Semester Hours: 12
Summer Semester EDE 4223 - Integrating Art, Music, and Physical Education 3 Credit Hours EDF 3214 - Human Development and Learning 3 Credit Hours EEX 3070 - Methods of Inclusion and Collaboration 3 Credit Hours RED 4312 - Integration of Assessment into Classroom Reading 3 Credit Hours Total Semester Hours: 12
Second Year
Fall Semester EDE 4226C - Integrated Language Arts, Social Science and Literature 3 Credit Hours MAE 3350C - Principles and Methods for Teaching Mathematics K-8 3 Credit Hours SCE 3350C - Principles and Methods for Teaching Science K-8 3 Credit Hours

RED 4519C - Diagnostic and Instructional Interventions in Reading **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

EDG 4940 - Internship **9 Credit Hours**

EDE 4930C - Professional Elementary Educator **1 Credit Hour**

RED 4854C - Reading Field Experience **2 Credit Hours**

Total Semester Hours: 12

Total Upper Division Program Hours: 60

Emergency Medical Services (AS)

Admission Program Objective Code EMSR

State CIP Code 1351090402

This curriculum forms the last stage of a career ladder program progression from Emergency Medical Technician (CCC) (State CIP Code 0351090415) to Paramedic (CCC) (State CIP Code 0351090405) to Emergency Medical Services (AS) degree.

Students interested in pursuing this program must have a current and active Florida Bureau of Emergency Medical Services EMT/Paramedic licensure. Contact the Emergency Services/Paramedic program at (850) 729-5378 for more information.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Natural Sciences **3 Credit Hours**
- ____ Social Sciences **3 Credit Hours**
- ____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

*** BSC 2020C (from Paramedic Core) may be used to meet GE Science.**

EMT Certificate Courses

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

Total EMT Credits Required: 12

Paramedic Certificate Core Courses

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

DSC 2055 - Issues in Disaster Response

1 Credit Hour
(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

EMS 1335 - Emergency Vehicle Operators Course

1 Credit Hour
(Offered as needed)

Students receive basic education and information on the safe and effective operation of emergency vehicles.

Prerequisite(s): permission of the EMS Program Director.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

5 Credit Hours
(Spring)

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

2 Credit Hours
(Spring)

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

1 Credit Hour
(Offered as needed)

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2425L - Paramedic Externship

4 Credit Hours
(Spring)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

5 Credit Hours
(Fall)

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

5 Credit Hours
(Spring)

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

2 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour

(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock

or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour (Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

HSC 1531 - Medical Terminology

3 Credit Hours (Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Paramedic Credits Required: 43

Total Program Credits Required: 73

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Emergency Medical Services (AS) (EMSR)	Companion Certificates*	
First Year	EMTB	EMPM
Summer Semester		
EMS 1119C - Emergency Medical Technician 6 Credit Hours	√	
EMS 1335 - Emergency Vehicle Operators Course 1 Credit Hour	√	
EMS 1401L - EMT Lab 6 Credit Hours	√	
HSC 1531 - Medical Terminology 3 Credit Hours		√

Total Semester Hours: 16		
Fall Semester BSC 2020C - Human Structure and Function 4 Credit Hours EMS 2231C - Paramedic Processes I 5 Credit Hours EMS 2435L - Paramedic Lab I 5 Credit Hours EMS 2552 - Advanced Cardiac Life Support (ACLS) 1 Credit Hour EMS 1337 - Defensive Tactics 1 Credit Hour Total Semester Hours: 16		√ √ √ √ √
Spring Semester EMS 2232C - Paramedic Processes II 5 Credit Hours EMS 2436L - Paramedic Lab II 5 Credit Hours EMS 2526 - Twelve-Lead EKG Interpretation 1 Credit Hour EMS 2553 - Pediatric Advanced Life Support (PALS) 1 Credit Hour EMS 2555 - International Trauma Life Support (ITLS) 1 Credit Hour Elective - CCJ, EMS, FFP - 3 Credit Hours Total Semester Hours: 16		√ √ √ √ √
Second Year		
Summer Semester EMS 2438C - Advanced Clinical Internship 2 Credit Hours EMS 2233 - Paramedic Processes III 2 Credit Hours EMS 2425L - Paramedic Externship 4 Credit Hours EMS 2342 - Advanced Extrication 1 Credit Hour DSC 2055 - Issues in Disaster Response 1 Credit Hour General Education Course - 3 Credit Hours Total Semester Hours: 13		√ √ √ √ √
Fall Semester		

General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
Total Semester Hours: 12		
Total Program Hours: 73		
* Courses with √ can also be used in the Companion Certificate indicated: EMTB - Emergency Medical Technician (Basic) (CCC) EMPM - Paramedic (CCC)		

Emergency Medical Technician (CCC)

Admission Program of Study Code EMTN

State CIP Code 0351090415

Admission will be through a Limited Access application process. Graduates of this program will be eligible to apply for the examination to become a Florida certified Emergency Medical Technician and a National Registry Emergency Medical Technician Basic. Students interested in pursuing this program should contact the Emergency Medical Services Office at (850) 729-5378.

Students who successfully complete this certificate may be eligible to receive credits towards the Emergency Medical Services (AS) degree (State CIP Code 1351090402).

Core Courses

EMS 1119C - Emergency Medical Technician

6 Credit Hours

(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1401L - EMT Lab

6 Credit Hours

(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in

Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

Total Program Credits Required: 12

Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS)

Admission Program Objective Code ETDM

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the four specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, and Digital Manufacturing with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007), Digital Manufacturing Specialist (CCC) (State CIP Code 0615000009), and Rapid Prototyping Specialist (CCC) (State CIP code 0615000012) certificates.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading

achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ◆
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and

inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part

production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) (ETDM)	Companion Certificates*		
First Year	ETTS	DMFS	RAPP
Fall Semester			
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶			
ETI 1710 - Occupational Safety 3 Credit Hours			
SLS 2505 - Critical Thinking 3 Credit Hours	√	√	
ETD 1320C - AutoCAD I 3 Credit Hours		√	
EET 1084C - Introduction to Electronics 3 Credit Hours			
Total Semester Hours: 15			
Spring Semester			
MAC 1105 - College Algebra 3 Credit Hours ♦	√		
ENC 2210 - Technical Report Writing 3 Credit Hours	√		
ETM 1005C - Basic Mechanical Operations 3 Credit Hours		√	
ETD 2150 - Industrial Print Reading 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Second Year			
Fall Semester			
PHY 1020 - Physical Science 3 Credit Hours ♦	√	√	√

ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours			
ETI 1420 - Prop of Materials/Cutting Tools 3 Credit Hours - Online Only			
Technical Elective 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Spring Semester			
ETI 2110 - Total Quality Tools 3 Credit Hours		√	√
PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶		√	
Social Science 3 Credit Hours	√		
Technical Elective 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Total Program Hours: 60			
* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC) DFMS - Digital Manufacturing Specialist (CCC) RAPP - Rapid Prototyping Specialist (CCC)			

Engineering Technology - Electronics Specialization Option (AS)

Admission Program Objective Code ETES

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the five specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, Digital Manufacturing and Electronics with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hours core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism,

deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦ (Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours (Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours (Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

**3 Credit Hours
(Fall)**

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

**3 Credit Hours
(Spring)**

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

**3 Credit Hours
(Fall, Spring)**

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Required Courses

EET 1015C - Electricity/Electronics I, DC Circuits

**3 Credit Hours
(Fall, Spring)**

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieiving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

**3 Credit Hours
(Fall, Spring)**

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws,

Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

EET 1141C - Solid State Electronics

3 Credit Hours

(Fall, Spring)

This is the third course required for Electronics Aide certificate. This course introduces the student to the concept, components, and uses of solid state electronics. Topics include semiconductor devices; thyristors and diodes, transistors, amplifiers, power supplies, oscillators, and optoelectronics. The use of capacitors and inductors in solid state electronics will be also covered. The design, set-up, and troubleshooting solid state circuits and devices using various power supplies and function generators will be dispersed throughout the class.

Prerequisite(s): EET 1025C

EET 1180C - Industrial Electronic Troubleshooting

3 Credit Hours

(Fall, Spring)

This course covers troubleshooting procedures for a variety of electronic equipment and circuits common to industrial applications. The student will develop and implement trouble shooting protocols and plans, equipment monitoring plans, a preventive maintenance plan, and select appropriate test and monitoring equipment. Safety in an industrial setting will be stressed and reinforced through a series of lab exercises throughout the course.

Prerequisite(s): EET 1084C

EET 2155C - Linear Integrated Circuits

3 Credit Hours

(Fall, Spring)

This course covers the fundamentals and applications of linear integrated circuits and operational amplifiers. The course covers includes inverting and non-inverting amplifiers, comparators, signal generators, differential and instrumentation amplifiers, operational amplifier specifications, active filters, modulator-demodulator integrated circuits, timers, analog to digital converters (ADC), and digital to analog converters (DAC) and measurement and analysis of linear circuits and devices.

Prerequisite(s): EET 1015C, EET 1025C

Total Technical Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Electronics Specialization Option (AS) (ETES)	Companion Certificate*
First Year	ETSS
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ ETI 1710 - Occupational Safety 3 Credit Hours - Offered Online Only SLS 2505 - Critical Thinking 3 Credit Hours ETD 1320C - AutoCAD I 3 Credit Hours EET 1084C - Introduction to Electronics 3 Credit Hours -Offered at Night Only Total Semester Hours: 15	 √ √
Spring Semester MAC 1105 - College Algebra 3 Credit Hours ♦ ENC 2210 - Technical Report Writing 3 Credit Hours ETM 1005C - Basic Mechanical Operations 3 Credit Hours EET 1015C - Electricity/Electronics I, DC Circuits 3 Credit Hours - Offered at Night Only ETD 2150 - Industrial Print Reading 3 Credit Hours Total Semester Hours: 15 Second Year	 √ √
Fall Semester PHY 1020 - Physical Science 3 Credit Hours ♦ EET 1180C - Industrial Electronic Troubleshooting 3 Credit Hours ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Online Only EET 1025C - Electricity/Electronics II, AC Circuits 3 Credit Hours - Offered at Night Only ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours Total Semester Hours: 15	 √
Spring Semester	

ETI 2110 - Total Quality Tools 3 Credit Hours	
PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶	
Social Science 3 Credit Hours	
EET 1141C - Solid State Electronics 3 Credit Hours	
EET 2155C - Linear Integrated Circuits 3 Credit Hours	
Total Semester Hours: 15	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC)	

Engineering Technology - Maintenance Technician Specialization Option (AS)

Admission Program Objective Code ENMT

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. Instruction in electrical/electronic principles, basic mechanic fundamentals, robotics and machine repair prepare the student to meet the demands and develop the skills required to maintain and troubleshoot high-tech manufacturing equipment. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality. Candidates interested in this program should be interested in working with their hands and enjoy the challenges of programming and troubleshooting electrical and mechanical equipment.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected core courses from this program of study may be eligible to receive the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007) certificate.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a

Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ◆
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Required Courses

EEL 2603C - Robotics-Mechanics and Controls

3 Credit Hours
(Fall)

This course introduces the student to robotics. Instructional topics will include robot classifications, applications, Input/Output (I/O) and sensor interfacing.

Prerequisite(s): ETS 1542C

EET 1015C - Electricity/Electronics I, DC Circuits

3 Credit Hours
(Fall, Spring)

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieiving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

3 Credit Hours
(Fall, Spring)

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common

circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

ETM 1315C - Hydraulics & Pneumatics Fundamentals

3 Credit Hours
(Spring)

This course introduces the student to basic hydraulic and pneumatic fundamentals. Instructional topics will include components, fluid pressure and flow and basic circuit design and application.

ETS 1542C - Introduction to Programmable Logic Controllers

3 Credit Hours
(Fall)

This is an introductory course in Programmable Logic Controllers (PLCs.) The student will learn basic concepts with a focus on programming and practical applications.

Prerequisite(s): EET 1084C

Total Technical Credits Required: 15

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Maintenance Technician Specialization Option (ENMT)	Companion Certificate*
First Year	ETSS
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ ETI 1710 - Occupational Safety 3 Credit Hours SLS 2505 - Critical Thinking 3 Credit Hours ETD 1320C - AutoCAD I 3 Credit Hours EET 1084C - Introduction to Electronics 3 Credit Hours Total Semester Hours: 15	
Spring Semester	

MAC 1105 - College Algebra 3 Credit Hours ♦ ENC 2210 - Technical Report Writing 3 Credit Hours ETM 1005C - Basic Mechanical Operations 3 Credit Hours ETD 2150 - Industrial Print Reading 3 Credit Hours EET 1015C - Electricity/Electronics I, DC Circuits 3 Credit Hours Total Semester Hours: 15	
Second Year	
Fall Semester PHY 1020 - Physical Science 3 Credit Hours ♦ ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours ETI 1420 - Properties of Materials and Processes 3 Credit Hours EET 1025C - Electricity/Electronics II, AC Circuits 3 Credit Hours ETS 1542C - Introduction to Programmable Logic Controllers 3 Credit Hours Total Semester Hours: 15	 √ √
Spring Semester ETI 2110 - Total Quality Tools 3 Credit Hours PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶ Social Science General Education 3 Credit Hours EEL 2603C - Robotics-Mechanics and Controls 3 Credit Hours ETM 1315C - Hydraulics & Pneumatics Fundamentals 3 Credit Hours Total Semester Hours: 15	 √
Total Program Credits: 60	
* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC)	

Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS)

Admission Program Objective Code ETMD

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the four specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, and Digital Manufacturing with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the CNC Machinist/Fabricator (CCC) (State CIP Code 0615080502), the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear,

quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ◆
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking

skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2905 - Independent Study – Drafting

1 Credit Hour
(Fall, Spring, Summer)

Practical treatment of special geometry, graphics, and design with emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing.

Prerequisite(s): EGN 1111C and ETD 1112 or permission of instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

* This course may be taken up to four times for credit.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

ETI 2419C - Advanced Concepts of CNC Machines and CNC Machining Practices

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with advanced concepts in CNC machines and CNC machining to include: theory, operation, setup, safety, and practices.

Prerequisite(s): PMT 2261C or PMT 2262C

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two-Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Mechanical Design and Fabrication Specialization Option (AS) (ETMD)		Companion Certificate*	
First Year		CNMM	ETSS
Fall Semester			
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶			
ETI 1710 - Occupational Safety 3 Credit Hours			
SLS 2505 - Critical Thinking 3 Credit Hours			√
ETD 1320C - AutoCAD I 3 Credit Hours		√	
EET 1084C - Introduction to Electronics 3 Credit Hours			
Total Semester Hours: 15			
Spring Semester			
ETD 2150 - Industrial Print Reading 3 Credit Hours			√
ENC 2210 - Technical Report Writing 3 Credit Hours			√
ETM 1005C - Basic Mechanical Operations 3 Credit Hours			
MAC 1105 - College Algebra 3 Credit Hours ♦			
Technical Elective 3 Credit Hours			

Total Semester Hours: 15		
Second Year		
Fall Semester ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Online Only ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours PHY 1020 - Physical Science 3 Credit Hours ♦ Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15	√	√
Spring Semester PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶ ETI 2110 - Total Quality Tools 3 Credit Hours Social Science General Education 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15	√	√
Total Program Hours : 60		
* Courses with √ can also be used in the Companion Certificate indicated: CNMM - CNC Machinist/Fabricator (CCC) ETSS - Engineering Technology Support Specialist (CCC)		

Engineering Technology Support Specialist (CCC)

Admission Program of Study Code ETSS

State CIP Code 0615000007

Students who successfully complete this certificate may be eligible to receive credits towards one of the Engineering Technology (AS) degree (State CIP Code 1615000001) specializations: Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) or Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS) , Engineering Technology - Electronics Specialization Option (AS) , Engineering Technology - Maintenance Technician Specialization Option (AS) .

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology Support Specialist (CCC) (ETSS)
Fall Semester
EET 1084C - Introduction to Electronics 3 Credit Hours - Offered at Night Only
ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Offered Online Only
ETI 1710 - Occupational Safety 3 Credit Hours - Offered Online Only
Total Semester Hours: 9
Spring Semester
ETI 2110 - Total Quality Tools 3 Credit Hours
ETD 1320C - AutoCAD I 3 Credit Hours
ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours
Total Semester Hours: 9
Total Program Hours: 18

Event Planning Management (CCC)

Admission Program of Study Code (EPMG)

State CIP Code 0252090905

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours (as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours (Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

Total Program Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Event Planning Management (CCC) (EPMG)
First Year
Fall Semester
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours

Total Semester Hours: 12
Spring Semester
FSS 1250 - Dining Room Management 3 Credit Hours
FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours
HFT 2210 - Hospitality Management 3 Credit Hours
Total Semester Hours: 9
Summer Semester
FSS 2251 - Food and Beverage Management 3 Credit Hours
Total Semester Hours: 3
Total Semester Hours: 24

Fire Officer Supervisor (CCC)

Admission Program of Study Code FSUP

State CIP Code 0743020111

****This program closed for admissions as of spring 2020.****

Earning this certificate increases management skills for professionals employed as Fire Fighters. The purpose of this certificate is to prepare students for employment as Firefighting and Prevention Supervisors to supervise Fire Fighters who control and extinguish fires, protect life and property, and conduct rescue efforts. The program is beneficial to professionals seeking career field enhancement. This program does not prepare students for certification as Fire Fighters. A student must successfully complete the basic recruit program in firefighting to become certified, pursuant to Chapter 633, Florida Statutes. This program does not complete the requirements to be eligible to sit for Bureau of Fire Standards and Training (BFST) certification exams. A student must contact the Bureau of Fire Standards and Training (BFST) for additional requirements.

Core Courses

FFP 1702 - Principles of Emergency Services

3 Credit Hours

(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

Total Program Credits Required: 12

Fire Science Technology (AS)

Admission Program of Study Code FSCI

State CIP Code 1743020112

****This program closed for admissions as of spring 2020.****

The Fire Science Technology Associate in Science degree program offers students a sequence of courses designed to provide relevant technical knowledge needed to prepare students for entry or advancement in the fire service or in

a related fire protection field. A technical certificate, Fire Officer Supervisor (6455) (T.C.), is included as an option within this degree program. Students may pursue the A.S. degree and earn the technical certificate while completing the requirements for the degree, or pursue the certificate to develop or upgrade their skills. Contact an advisor or counselor to determine the career education path that is best for you.

Career Opportunities

In addition to community fire departments, there are opportunities in government installations such as airports, as well as private fire-fighting companies. There is also a need for inspectors, investigators, forest rangers and smoke jumpers. In all cases, employment is based on high test scores and outstanding skills.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

FFP 1505 - Fire Prevention Practices

3 Credit Hours

(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1540 - Private Fire Protection Systems

3 Credit Hours

(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1810 - Firefighting Tactics and Strategy I

3 Credit Hours
(Fall, Spring, Summer)

This course is a study of the principles utilized on the fire ground for maximum manpower and equipment utilization; fire ground administration starting with a small fire on up through major conflagrations. Emphasis will be on developing thinking skills in relation to crises.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2120 - Fire Service Building Construction

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2720 - Company Officer

3 Credit Hours
(Fall, Spring, Summer)

Designed to assist fire officers in solving the varied problems and situations they will be required to manage effectively in today's ever changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation, and small group dynamics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2780 - Fire Department Administration

3 Credit Hours
(Fall, Spring, Summer)

The course is designed to present the principles of management theory, and its application in the fire service. The course is intended for officers whose area of responsibility encompasses long and short range planning, budgeting and administration.

Prerequisite(s): FFP 0010 and FFP 0020

Total Core Credits Required: 30

Technical Elective Courses

Select 15 credits from the following:

(Contains 15 hours articulation for Firefighter/Emergency Medical Technician-Combined (CCP))

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.
And

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

DSC 1004 - Introduction to NRF and NIMS

3 Credit Hours
(Offered as needed)

Designed to inform emergency responders and planners of the key elements in the National Response Framework (NRF) and the National Incident Management System (NIMS) and their relationship to planning and response operations. The curriculum includes classroom exercises.

DSC 1250 - Unmanned Vehicles Fundamentals for Disaster Management

3 Credit Hours
(Spring)

This course examines the protocol and interagency support concepts for the utilization of unmanned vehicles in preparation and response of catastrophic events. Students will be introduced to the development of an emergency response plan which will include unmanned vehicle concepts such as observation, communications, safety, training, and also integration between Public safety agencies.

DSC 1631 - Planning Considerations for Terror Prevention

3 Credit Hours
(Offered as needed)

This course introduces participants to various aspects of planning for potential terrorist activity. The student will be introduced to basic principles of emergency management, communications, security threats, and the effects these operations may have on personnel. The student will learn techniques for evaluating their own jurisdiction's vulnerability against terrorist attacks. Students will gain knowledge of the roles and responsibilities of local agencies during terrorism responses. The course introduces participants to various aspects of emergency management of terrorist activity.

DSC 1751 - Homeland Security Policy and Law

3 Credit Hours
(Offered as needed)

This course introduces participants to the major debates about balancing democratic freedoms with security from the Patriot Act to Supreme Court decisions on detention powers. The course provides insight into legal strategies necessary to confront ongoing national security threats. The course examines laws designed to preserve both our security and our democratic way of life.

DSC 2056 - Disaster Response Operations

3 Credit Hours
(Offered as needed)

This course examines the response protocol, logistics, responsibilities, interagency support, and concepts of front end planning involved in preparation for a catastrophic event. Students will be introduced to the development of an emergency response plan that will include concepts such as lookout, awareness, communications, escape, safety (laces), training, and various agency relationships.

DSC 2900 - Development of Unmanned Vehicle Applications

3 Credit Hours
(Fall, Spring, Summer)

Students complete a project that demonstrates excellence by applying the knowledge of unmanned drones gained from the public safety core courses. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

EMS 2350 - Unmanned Vehicles Applications and Operations for EMS

3 Credit Hours
(Summer)

This course examines the response of Emergency Medical Services to unsecure scenes with the aid of unmanned vehicles. Students will explore EMS protocols for the utilization of unmanned vehicles in catastrophic events with mass casualties requiring triage and multiple agency responses. Participants will be introduced to the concepts of the utilization of unmanned vehicles for support during large scale public events such as; conventions, festivals, athletic events, protest, and special team support.

FFP 1691 - Fundamentals of Firefighting & Unmanned Vehicles

**3 Credit Hours
(Summer)**

Course introduces the fundamentals of unmanned vehicle applications for firefighting with prioritization of manpower and equipment utilization. Fire officers explore the use of unmanned vehicles for fire ground commanders for tactical operations for all levels of fire. Emphasis for fire investigators on utilization of unmanned vehicles in the investigation process. Course introduces determination of fire cause and origin with collection of evidence by unmanned vehicles during fire scene investigation. Participants will explore the use unmanned vehicles for planning, responding, and evaluating HAZMAT incidents.

FFP 1826 - Incident Management

**3 Credit Hours
(Offered as needed)**

This course contrasts the major forms of Incident Management/Incident Command Systems. It illuminates these differences and offers a fresh perspective on the concepts on which these systems are founded in order to make them more accessible and user-friendly. It bridges the gap between their theoretical and academic foundations and their real-world applications, and makes them more applicable to the professional's daily needs.

FFP 2692 - Unmanned Vehicles Applications and Search & Rescue

**3 Credit Hours
(Fall)**

This course examines the utilization of unmanned vehicles by public safety in various search and rescue operations. Students will be introduced to the utilization of unmanned vehicles during searches for suspects eluding capture. Course will examine the response protocol and interagency support utilizing unmanned vehicles in urban, water, and various terrain search and rescue operations. Students will be introduced to the operations of unmanned vehicles for silver and amber alerts.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 63

Firefighter I/II (CCP)

**Admission Program of Study Code FIRN
State CIP Code 0743020303**

Entry into the Firefighting Certificate Program requires meeting the standards established by the Florida Division of State Fire Marshal, Bureau of Fire Standards and Training. A copy of these requirements is available through the Public Safety Division of NWF State College.

Core Courses

FFP 0010 - Firefighting I

206 Clock Hours
(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 398

Corequisite Course

FFP 0077 - First Responder for Public Safety Personnel

45 Clock Hours
(Fall, Spring, Summer)

This course trains public safety members who are the first to arrive at an emergency in providing efficient and accurate pre-hospital care. Students assess patients for wounds to determine if trauma, shock, burns or closed airways are a problem and how to address those issues by dressing wounds, stabilizing the person or administering oxygen. They immobilize patients and address common emergency medical issues with basic treatments. This course includes hands-on, practical experience and is necessary to be eligible for first responder certification.

This course is a co-requisite course for students entering the Firefighting Certificate program who do not have certification for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Fire Fighter (Basic) (CCP) (FIRE)
Fall Semester
FFP 0010 - Firefighting I 206 Clock Hours
FFP 0020 - Firefighting II 192 Clock Hours
FFP 0077 - First Responder for Public Safety Personnel 45 Clock Hours *
Total Semester Clock Hours: 398
Total Program Hours: 398
* FFP0077 is a program corequisite unless student is a First Responder, Paramedic or EMT

Firefighter/Emergency Medical Technician-Combined (CCP)

Admission Program of Study Code FIEM

State CIP Code 0743020312

Basic Skills Requirements: The student must be exempt or attain a **10th grade level** on each section of the TABE exam: Math, Language and Reading.

Entry into the Firefighter/Emergency Medical Technician-Combined Program requires meeting the standards established by the Florida Division of State Fire Marshal, Bureau of Fire Standards and Training. A copy of these requirements is available through the Public Safety Division of NWF State College.

Firefighters are trained to extinguish and control fires in response to situations where property, life, or the environment is in danger. At the scene of an emergency, firefighters perform tasks assigned by their commanding officer. Depending on the situation, they may need to provide medical attention, break through debris, operate fire hoses, or enter a burning building. Firefighters are often first responders to car accidents, heart attack scenes, and other medical emergencies that do not involve fire.

Graduates of this program will be eligible to apply for the examinations to become both a Florida Certified Emergency Medical Technician/National Registry Emergency Medical Technician Basic and Florida Fire Standards. This will allow graduates to obtain employment as a firefighter EMT after 2 semesters of training.

The Firefighter/EMT Certificate program is two semester program that consists of Firefighter standards and EMT training. Applicants to this program must have a high school diploma or GED and meet other applicable admission criteria. If the number of qualified applicants to the program exceeds the number of openings, students will be

accepted using a combination of application points . Contact the Emergency Services Office at (850) 729-5378 for additional information.

Core Courses

EMS 0119 - Emergency Medical Technician for Firefighters

140 Clock Hours
(Fall, Spring, Summer)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director

Corequisite(s): FFP 0010, FFP 0020, EMS 0119L

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 0119L - Emergency Medical Technician Lab for Firefighters

160 Clock Hours
(Fall, Spring, Summer)

This course provides an integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director.

Corequisite(s): FFP 0010, FFP 0020, EMS 0119

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0010 - Firefighting I

206 Clock Hours
(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 698

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Firefighter/Emergency Medical Technician-Combined (CCP)
Fall Semester
FFP 0010 - Firefighting I 206 Clock Hours
FFP 0020 - Firefighting II 192 Clock Hours
Total Semester Clock Hours: 398

Spring Semester

EMS 0119 - Emergency Medical Technician for Firefighters **140 Clock Hours**

EMS 0119L - Emergency Medical Technician Lab for Firefighters **160 Clock Hours**

Total Semester Clock Hours: 300

Total Program Clock Hours: 698

Food and Beverage Management (CCC)

Admission Program of Study Code FBMG

State CIP Code 0252090503

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses**FOS 2201 - Food Service Sanitation Management**

**3 Credit Hours
(as Needed)**

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

**3 Credit Hours
(Spring)**

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

**3 Credit Hours
(Summer)**

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and

techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and

hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

3 Credit Hours
(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

Total Program Credits Required: 30

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beveragement Management (CCC) (FBMG)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours
HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours
Total Semester Hours: 12
Spring Semester
FSS 1250 - Dining Room Management 3 Credit Hours

HFT 2210 - Hospitality Management **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management **3 Credit Hours**

HFT 1250 - Hotel and Resort Operations **3 Credit Hours**

Total Semester Hours: 12

Summer Semester

HFT 2942 - Hospitality Internship **3 Credit Hours**

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 6

Total Semester Hours: 30

Food and Beverage Operations (CCC)

Admission Program of Study Code FBOP

State CIP Code 0252090508

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101)

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours

(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours

(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours (Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beverage Operations (CCC) (FBOP)
First Year

Fall Semester

FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**

HFT 1500 - Marketing and Sales in the Hospitality Industry **3 Credit Hours**

Total Semester Hours: 9

Spring Semester

FSS 1250 - Dining Room Management **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management **3 Credit Hours**

Total Semester Hours: 6

Summer Semester

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 3

Total Program Hours: 18

Food and Beverage Specialist (CCC)

Admission Program of Study Code FBSP

State CIP Code 0252090507

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101)

Core Courses**FOS 2201 - Food Service Sanitation Management**

3 Credit Hours

(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

**3 Credit Hours
(Spring)**

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

**3 Credit Hours
(Fall)**

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beverage Specialist (CCC) (FBSP)
First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours Total Semester Hours: 9
Spring Semester

FSS 1250 - Dining Room Management 3 Credit Hours
Total Semester Hours: 3
Total Program Hours: 12

Graphic Design Production (CCC)

Admission Program of Study Code GRDP

State CIP Code 0611080303

Students who successfully complete this certificate may be eligible to receive credits towards the Graphics Technology (Graphic Design) A.S. Degree (State CIP Code 1611080300).

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours

(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours

(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours

(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 25

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Graphic Design Production (CCC) (GRAT)
Fall Semester
PGY 1801C - Digital Photography I 4 Credit Hours
GRA 1151C - Illustration I 3 Credit Hours
GRA 2190C - Graphic Design I 3 Credit Hours
ART 2602C - Digital Imaging I 4 Credit Hours
Total Semester Hours: 14
Spring Semester
ART 2603C - Digital Imaging II 4 Credit Hours
PGY 2802C - Digital Photography II 4 Credit Hours
GRA 1152C - Illustration II 3 Credit Hours
Total Semester Hours: 11
Total Program Hours: 25

Graphic Design Support (CCC)

Admission Program of Study Code GRDS
State CIP Code 0611080302

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 14

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Graphic Design Support (CCC) (GRDS)
Fall Semester ART 2602C - Digital Imaging I 4 Credit Hours GRA 2190C - Graphic Design I 3 Credit Hours Total Semester Hours: 7
Spring Semester PGY 1801C - Digital Photography I 4 Credit Hours

GRA 1151C - Illustration I 3 Credit Hours
Total Semester Hours: 7
Total Program Hours: 14

GRA 2191C - Graphic Design II

3 Credit Hours

(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

Graphics Technology - Graphic Design Option (AS)

Admission Program Objective Code GRTH

State CIP Code 1611080300

The Graphics Technology (Graphic Design Technology) A.S. degree is intended for students interested in careers in Graphic Design and Commercial Art where creativity and visual communication are core competencies. Students are encouraged, but not required, to contact Graphic Arts faculty at 729-6019 for detailed advising to plan a program of study before enrolling in courses.

Students who successfully complete selected courses from this program of study may be eligible to receive the Graphic Design Production (CCC) (State CIP Code 0650040204), and/or Graphic Design Support (CCC) (State CIP Code 0650040202).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours
(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application.

Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 2191C - Graphic Design II

3 Credit Hours
(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 24

Technical Elective Courses

Select 22 credits from the following:

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

GRA 2905 - Independent Study – Graphic Design

1 Credit Hour
(Offered as needed)

The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

Prerequisite(s): GRA 1151C or PGY 1801C

▲ Technology-Across-the-Curriculum Course.

GRA 2950C - Advanced Graphic Projects

4 Credit Hours
(Offered as needed)

An advanced Graphic Design course addressing common Graphic Design problems. Students will explore advanced software application functionality and creative, aesthetic, and portfolio development. Access to a high quality digital camera required.

Prerequisite(s): ART 2602C, ART 2603C, GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 1220C - Commercial Photography I

4 Credit Hours
(Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using a high quality digital studio camera, electronic lighting, and digital applications of their work. It is recommended that students take PGY 1801C prior to or at the same time as this course.

PGY 2221C - Commercial Photography II

4 Credit Hours
(Offered as needed)

As advanced a course that allows the student to expand their skill set in producing photographic illustrations for industrial and advertising use. Students may explore product, portrait, and on-location commercial photographic projects.

Prerequisite(s): PGY 1220C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

PGY 2804C - Digital Photography III

(Offered as needed)

Prerequisite(s): PGY 2802C.

- Other Approved College Credits (GRA, PGY)

Total Program Credits Required: 64

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Graphics Technology, Graphics Design Option (AS) (GRTH)	Companion Certificate*	
First Year	GRDS	GRAT
Fall Semester		
PGY 1801C - Digital Photography I 4 Credit Hours		√
GRA 1151C - Illustration I 3 Credit Hours	√	√
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶		
Mathematics General Education 3 Credit Hours		
Additional General Education 3 Credit Hours		
Total Semester Hours: 16		
Spring Semester	√	√
ART 2602C - Digital Imaging I 4 Credit Hours	√	√
GRA 2190C - Graphic Design I 3 Credit Hours		

Humanities General Education 3 Credit Hours		
Science General Education 3 Credit Hours		
Total Semester Hours: 13		
Summer Semester		
Social Science General Education 3 Credit Hours		
PGY 2802C - Digital Photography II 4 Credit Hours		√
Total Program Hours: 7		
Second Year		
Fall Semester		
GRA 1152C - Illustration II 3 Credit Hours		
GRA 2191C - Graphic Design II 3 Credit Hours	√	√
ART 2603C - Digital Imaging II 4 Credit Hours		√
PGY 1220C - Commercial Photography I 4 Credit Hours		
GRA 2900 - Independent Study – Graphic Art 1 Credit Hour		
Total Semester Hours: 15		
Spring Semester		
PGY 2221C - Commercial Photography II 4 Credit Hours		
GRA 2950C - Advanced Graphic Projects 4 Credit Hours		
PGY 2804C - Digital Photography III 4 Credit Hours		
GRA 2905 - Independent Study – Graphic Design 1 Credit Hour		
Total Semester Hours: 13		
Total Program Hours: 64		
* Courses with √ can also be used in the Companion Certificate indicated: Graphic Design Support (CCC) GRAT - Graphics Design Production (CCC)		

Graphics Technology - Visual Artist Option (AS)

Admission Program Objective Code GRTV
State CIP Code 1611080300

The Graphics Technology (Graphic Design Technology) A.S. degree is intended for students interested in careers in Graphic Design and Commercial Art where creativity and visual communication are core competencies. Students are encouraged but not required to contact Graphic Arts faculty for detailed advising before enrolling in courses to plan a program of study at 729-6019.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2500C - Painting I

3 Credit Hours
(Fall, Spring)

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing, and execution thereof within a variety of subject matter. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 26

Technical Elective Courses

Select 20 credits from the following:

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2701C - Sculpture I

3 Credit Hours
(Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2703C - Sculpture II

3 Credit Hours
(Spring)

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach.

Prerequisite(s): ART 2701C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2501C - Painting II

3 Credit Hours
(Fall, Spring)

This course is a continuation of Painting I ART 2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed.

Prerequisite(s): ART 2500C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2955 - Portfolio Development

3 Credit Hours
(Spring)

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation.

Prerequisite(s): ART 1201C, ART 1203C, ART 1300C, ART 1301C.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

- _____ Other Approved College Credits _

Total Technical Elective Credits Required: 20

Total Program Credits Required: 64

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Graphics Technology, Visual Artist Option (AS) (GRTV)
First Year
Fall Semester
ART 1300C - Drawing I 3 Credit Hours
ART 2602C - Digital Imaging I 4 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
Mathematics General Education 3 Credit Hours
Additional General Education 3 Credit Hours
Total Semester Hours: 16
Spring Semester
GRA 1151C - Illustration I 3 Credit Hours
ART 1201C - Two-Dimensional Design 3 Credit Hours
Humanities General Educaiton 3 Credit Hours

Science General Education **3 Credit Hours**

Total Semester Hours: 12

Summer Semester

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism **3 Credit Hours** ♦ † ¶

PGY 1801C - Digital Photography I **4 Credit Hours**

Total Semester Hours: 7

Second Year

Fall Semester

GRA 2190C - Graphic Design I **3 Credit Hours**

GRA 1152C - Illustration II **3 Credit Hours**

ARH 2402 - Art History: Modern Art **3 Credit Hours** ♦ † ¶

ART 2500C - Painting I **3 Credit Hours**

ART 1301C - Drawing II **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ART 2501C - Painting II **3 Credit Hours**

ART 1203C - Three-Dimensional Design **3 Credit Hours**

Social Science General Education **3 Credit Hours**

PGY 1220C - Commercial Photography I **4 Credit Hours**

GRA 2905 - Independent Study – Graphic Design **1 Credit Hour**

Total Semester Hours: 14

Total Program Hours: 64

Guest Services Specialist (CCC)

Admission Program of Study Code GUES

State CIP Code 0252090403

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 15**Suggested Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Guest Services Specialist (CCC) (GUES)	Companion Certificate*
First Year	
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours Total Semester Hours: 9	
Spring Semester HFT 1250 - Hotel and Resort Operations 3 Credit Hours Total Semester Hours: 3	
Summer Semester HFT 1410 - Front Office Management 3 Credit Hours Total Semester Hours: 3	√
Total Program Credits: 15	
* Courses with √ can also be used in the Companion Certificate indicated: Rooms Division Operations (CCC)	

Health Services Management (AS)

Admission Program Objective Code HTMG
State CIP Code 1351070101

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**

- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **2 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

HSA 1100 - Introduction to Health Care

3 Credit Hours (Fall)

This course provides an overview of the United States Healthcare System, including the economic, social, political, and technological forces that shape the industry. The role of state and federal government and regulatory agencies in healthcare delivery is examined. The fundamental roles and responsibilities of healthcare team members are surveyed. Healthcare safety, security, and infection control procedures will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1100 - Health Education

3 Credit Hours (Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

3 Credit Hours (Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

HSC 1531 - Medical Terminology

3 Credit Hours (Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours (Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

or

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours
(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

3 Credit Hours (Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1346 - Supervision II

3 Credit Hours (Offered as needed)

The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socioeconomic climate and other information. Included are orientation, training, labor unions, safety, health and other related topics.

Prerequisite(s): MNA 1345 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours (Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Note(s):

** Anatomy & Physiology I with Anatomy & Physiology II may be substituted for BSC 2020C.*

*** Students who have successfully completed a health related program such as dental assisting, practical nursing, or surgical technology may challenge the Medical Terminology course. Contact the Division Director for further information.*

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Health Services Management (AS) (HTMG)

First Year

Fall Semester

CGS 1100 - Microcomputer Applications **3 Credit Hours ▲** or CGS 1570 - Computer Applications for Business **3 Credit Hours**

HSA 1100 - Introduction to Health Care **3 Credit Hours**

ENC 1101 - English Composition I **3 Credit Hours ♦ ▲ ¶**

Mathematics General Education - **3 Credit Hours**

BSC 2020C - Human Structure and Function **4 Credit Hours** or BSC 1085C - Anatomy and Physiology I and BSC 1086C - Anatomy and Physiology II

Total Semester Hours: 16

Spring Semester

HSC 1100 - Health Education **3 Credit Hours**

HSC 1400 - First Aid **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

HSC 1531 - Medical Terminology **3 Credit Hours**

MNA 1161 - Customer Service **3 Credit Hours**

Social Science General Education - **3 Credit Hours**

Humanities General Education Course - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MNA 1345 - Supervision I **3 Credit Hours**

OST 2335 - Business Communications **3 Credit Hours** or SPC 2300 - Interpersonal Communication

ENC 2210 - Technical Report Writing **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Additional General Education Credits - **2 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 60

Hospitality and Tourism (AS)**Hospitality and Tourism**

Admission Program of Study Code HSTR

State CIP Code 1252090101

The Hospitality and Tourism program prepares students for employment in management positions in the hospitality industry and/or provides supplemental training for persons previously or currently employed in these occupations. The hospitality industry as addressed in this program includes the hotel, motel, bed and breakfast, resort, club, marina, and other lodging organizations.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in :

Event Planning Management (CCC)

Food and Beverage Management (CCC)

Food and Beverage Operations (CCC)

Food and Beverage Specialist (CCC)

Guest Services Specialist (CCC)

Rooms Division Management (CCC)

Rooms Division Operations (CCC)

Rooms Division Specialist (CCC)

General Education

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- PHI 2600 - Introduction to Ethics **3 Credit Hours** ♦ † ¶

- MAC 1105 - College Algebra **3 Credit Hours ♦**, STA 2023 - Statistics **3 Credit Hours ♦**, MGF 1106 - Practical Applications of Mathematics **3 Credit Hours ♦** or higher mathematics course
- BSC 1005 - General Biology **3 Credit Hours ♦**, CHM 1020 - Chemical Science **3 Credit Hours ♦**, or PHY 1020 - Physical Science **3 Credit Hours ♦**
- ECO 2013 - Economics I **3 Credit Hours ♦**
- HUN 2201 - Nutrition **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu

development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems,

needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

3 Credit Hours
(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college

resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Hospitality and Tourism (AS) – Specializations – Event Planning, Food and Beverage, and Room Division
First Year
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours FOS 2201 - Food Service Sanitation Management 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ SLS 1101 - College Success 3 Credit Hours Total Semester Hours: 12
Spring Semester HFT 1250 - Hotel and Resort Operations 3 Credit Hours FSS 1250 - Dining Room Management 3 Credit Hours BSC 1005 - General Biology 3 Credit Hours ♦ , PHY 1020 - Physical Science 3 Credit Hours ♦ , or CHM 1020 - Chemical Science 3 Credit Hours ♦ MAC 1105 - College Algebra 3 Credit Hours ♦ , STA 2023 - Statistics 3 Credit Hours ♦ , or MGF 1106 - Practical Applications of Mathematics 3 Credit Hours ♦ Total Semester Hours: 12
Summer Semester FSS 2251 - Food and Beverage Management 3 Credit Hours HFT 1410 - Front Office Management 3 Credit Hours CGS 1570 - Computer Applications for Business 3 Credit Hours Total Semester Hours: 9

Second Year
Fall Semester HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours ECO 2013 - Economics I 3 Credit Hours ♦ HUN 2201 - Nutrition 3 Credit Hours Total Semester Hours: 15
Spring Semester HFT 2210 - Hospitality Management 3 Credit Hours FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶ HFT 2942 - Hospitality Internship 3 Credit Hours Total Semester Hours: 12
Total Program Hours: 60

Industrial Management Technology (AS)

Admission Program Objective Code INDU

State CIP Code 1652020501

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

Required Course

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

GEB 1214 - Business and Supervision Terminology

2 Credit Hours
(Fall)

This course is designed for students to achieve mastery of the special vocabulary, jargon, and concept terminology associated with general business and supervision in the modern workplace. Students will apply the terms in common workplace scenarios and hypothetical situations, as well as in standard written documents and assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 29

Technical Elective Courses

Select 13 credits from the following:

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2947 - Academic Learning Field Studies I

1 Credit Hour
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2948 - Academic Learning Field Studies II

2 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2949 - Academic Learning Field Studies III

3 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Total Technical Elective Credits Required: 13

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Industrial Management Technology (AS) (INDU)
First Year
Fall Semester GEB 1214 - Business and Supervision Terminology 2 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours MTB 1103 - Business Mathematics 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 1 Credit Hours Total Semester Hours: 15
Spring Semester ETI 1710 - Occupational Safety 3 Credit Hours MNA 1345 - Supervision I 3 Credit Hours Social Science General Education Course 3 Credit Hours Mathematics General Education Course 3 Credit Hours

Humanities General Education Course **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

Science General Education Course **3 Credit Hours**

ACG 2001 - Accounting I **3 Credit Hours**

MAN 2021 - Management **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ETI 2110 - Total Quality Tools **3 Credit Hours**

MAN 2300 - Personnel Management **3 Credit Hours**

MNA 2100 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Infant/Toddler Specialization (CCC)

Admission Program of Study Code CITS

State CIP Code 0419070907

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours

(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

Total Core Credits Required: 12

Total Program Credits Required: 12

Law Enforcement Officer (Basic) (CCP)

Admission Program of Study Code LEOB
State CIP Code 0743010700

Entry into Criminal Justice Certificate Programs requires meeting the standards as established by the Criminal Justice Standards and Training Commission and the Florida Department of Law Enforcement for employment. A copy of these requirements will be furnished by the Public Safety Division at NWF State College.

Core Courses

CJK 0001 - Introduction to Law Enforcement

12 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to law enforcement, the process for becoming a certified law enforcement officer, and the requirements of the academy program. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0012 - Legal

63 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to the criminal justice system, the chain-of-command system in law enforcement, Constitutional Law, Florida Statutes, and the Police Code of Ethics. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0013 - Interactions in a Diverse Community

42 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enhance student awareness and understanding of human diversity issues and to teach students skills to enable them to effectively interact with people of diverse backgrounds. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0014 - Interviewing and Report Writing

54 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to help the student learn vital communication skills including interviewing, note-taking, statement taking, and report writing. It also helps the student to develop survival skills, stress management skills, and problem solving skills utilizing the SECURE model. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0020 - Law Enforcement CMS Vehicle Operations

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply vehicle operations knowledge, principles and techniques to the police driving environment. This course includes classroom instruction and practical application on the driving range. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0040 - CMS Firearms

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

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CJK 0051 - Defensive Tactics

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJK 0064 - Fundamentals of Patrol

36 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to understand Community Oriented Policing and how it is implemented as a problem solving model, and identify the SECURE problem solving model and its application in real life situations; understand officer safety issues, identify and avoid fatal errors, identify and manage stress, maintain mental and physical fitness; respond to a call, approach a suspect, make an arrest, transport a prisoner and process the prisoner at a detention facility; and understand how to direct traffic, how to enforce traffic citations, identify how to respond to alarms and conduct a building search, and search inventory and impound vehicles. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0065 - Calls for Service

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to respond to calls for service, disturbances, people in distress and court orders. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0077 - Criminal Investigations

51 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond appropriately to a person or property crime victim, witness, and suspect; conduct a preliminary investigation on crimes against persons and crimes against property offenses; conduct a follow-up investigation to establish a suspect's identity and/or ascertain facts of the case; and, give testimony in different types of court proceedings. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0078 - Crime Scene to Courtroom

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond to a crime scene, protect and survey a crime scene, process a crime scene, dust for latent prints, and document a crime scene by sketching. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0084 - DUI Traffic Stops

33 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective DUI stops, including identifying a driver under the influence of alcohol and drugs, conducting field sobriety tests, and completing a DUI investigation. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0087 - Traffic Stops

30 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective traffic stops, including ethical consideration, safety considerations, citation and warning procedures, and dealing with abandoned vehicles. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0088 - Traffic Crash Investigations

33 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to traffic crash investigations, laws pertaining to traffic crashes and procedures for responding to a traffic crash. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0092 - Critical Incidents

45 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to identify the crowd control procedures to safely and effectively disperse or control a large group of people; understand local emergency response plans; respond to a bomb threat, assesses the scene, search and evacuate a

building or suspected bomb sight, identify Weapons of Mass Destruction and properly respond to a WMD incident. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0096A - Criminal Justice Physical Fitness I

31 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0096B - Criminal Justice Physical Fitness II

32 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0422 - Dart-Firing Stun Gun

9 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare students in the proper use of the Dart Firing Stun in accordance with the Florida State Statutes, the United States Constitution, and case law. It includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 801

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Law Enforcement Officer (Basic) (CCP) LEOB)
Fall Semester
CJK 0001 - Introduction to Law Enforcement 12 Clock Hours
CJK 0012 - Legal 63 Clock Hours
CJK 0013 - Interactions in a Diverse Community 42 Clock Hours
CJK 0014 - Interviewing and Report Writing 54 Clock Hours
CJK 0064 - Fundamentals of Patrol 36 Clock Hours
CJK 0065 - Calls for Service 36 Clock Hours
CJK 0077 - Criminal Investigations 51 Clock Hours
CJK 0078 - Crime Scene to Courtroom 36 Clock Hours
CJK 0020 - Law Enforcement CMS Vehicle Operations 48 Clock Hours
CJK 0040 - CMS Firearms 81 Clock Hours
CJK 0096A - Criminal Justice Physical Fitness I 31 Clock Hours
CJK 0096B - Criminal Justice Physical Fitness II 32 Clock Hours
CJK 0031 - CMS First Aid for Criminal Justice Officers 48 Clock Hours
Total Semester Clock Hours: 549
Spring Semester
CJK 0092 - Critical Incidents 45 Clock Hours
CJK 0087 - Traffic Stops 30 Clock Hours
CJK 0084 - DUI Traffic Stops 33 Clock Hours

CJK 0088 - Traffic Crash Investigations **33 Clock Hours**

CJK 0051 - Defensive Tactics **81 Clock Hours**

CJK 0422 - Dart-Firing Stun Gun **9 Clock Hours**

Total Semester Clock Hours: 252

Total Program Clock Hours: 801

Management and Supervision - Health Care Management (BAS)

Admission Program of Study Code BSHC

State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours (Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

**3 Credit Hours
(Fall)**

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

**3 Credit Hours
(Fall)**

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

**3 Credit Hours
(Fall)**

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

**3 Credit Hours
(Spring, Summer)**

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

**3 Credit Hours
(Spring)**

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

**3 Credit Hours
(Fall)**

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

**3 Credit Hours
(Fall, Spring)**

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Healthcare Management

HSA 3110 - Health Care Organization and Management

**3 Credit Hours
(Spring, Summer)**

This course focuses on the structure and management of health care organizations, and the fundamental issues facing the U.S. health care system. Key topics include health status, the organization of health services, manpower, public health, financing, facilities, utilization, quality, regulation, and national health policy.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3111 - Introduction to Health Care Management

3 Credit Hours
(Fall, Spring)

This course studies the administration, organization and delivery of health care in the United States. Topics to be examined include health care leadership, management, strategy, performance improvement, information technology, insurance, financial and human resources management, as well as ethical and legal concepts.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4191 - Health Information Systems

3 Credit Hours
(Fall)

This course focuses on the theories, concepts and principles of health information systems and development of critical thinking skills for use in practice/working in health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying evidence-based knowledge, will analyze the design and implementation of health care information systems.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4922 - Capstone: Health Care Management

3 Credit Hours
(Spring)

This course integrates the information, skills, and abilities provided throughout the Health Administration Program in a capstone project. Students complete a project that demonstrates excellence by applying the knowledge gained from the core courses and materials studied throughout the program. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Total Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Health Care Management (BAS) (BSHC)
First Year
Fall Semester
GEB 3213 - Business and Administrative Communication 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
HSA 3111 - Introduction to Health Care Management 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
BUL 3320 - Law and Business 3 Credit Hours
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours

HSA 3110 - Health Care Organization and Management **3 Credit Hours**

MAN 3240 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAR 4333 - Marketing Strategy **3 Credit Hours**

HSA 4191 - Health Information Systems **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HSA 4922 - Capstone: Health Care Management **3 Credit Hours**

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Human Resources Management (BAS)

Admission Program of Study Code BSHR

State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____-____ - Foreign Language
- ____-____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the

sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social

reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours (Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours (Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours (Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours (Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Human Resources Management

HUS 4950 - Capstone: Human Resources Management

3 Credit Hours
(Spring)

This capstone will build upon and integrate the primary human resource management skills introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge in the field of human resources.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3310 - Issues in Human Resource Management

3 Credit Hours
(Fall, Spring)

Introduces the full range of human resource management functional areas, including recruiting and hiring staff, performance evaluations, employment regulations, discipline and termination, downsizing, compensation and benefits, job analysis, the organized labor setting, equity/diversity issues, and policy design. Approach will focus on current issues and applications.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3320 - Employee Staffing and Benefits

3 Credit Hours
(Fall)

An intermediate level course in employment staffing issues focusing on staffing patterns, organizational structures, job analysis and design, staffing efficiencies, employee assistance programs, staff projection models, and employee services.

Prerequisite(s): upper division standing and MAN 3310 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3350 - Training and Development

3 Credit Hours
(Fall, Summer)

Covers various staff training and development models, effective workshop techniques, designing and implementing company-wide training and development programs. Assessment of training needs, training and development as a benefit and setting development goals; students will design and conduct at least one workshop/training session for fellow students.

Prerequisite(s): upper division standing and GEB 3213 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Total Technical Elective Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Human Resources Management (BAS) (BSHR)
First Year
Fall Semester GEB 3213 - Business and Administrative Communication 3 Credit Hours MAN 3052 - Management Philosophy and Practice 3 Credit Hours GEB 3434 - Ethics for Business Leaders 3 Credit Hours MAN 3310 - Issues in Human Resource Management 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Spring Semester BUL 3320 - Law and Business 3 Credit Hours ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours MAN 3320 - Employee Staffing and Benefits 3 Credit Hours MAN 3240 - Organizational Behavior 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester QMB 3250 - Quantitative Methods for Business Decisions 3 Credit Hours FIN 4402 - Financial and Economic Management 3 Credit Hours MAR 4333 - Marketing Strategy 3 Credit Hours MAN 3350 - Training and Development 3 Credit Hours

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HUS 4950 - Capstone: Human Resources Management **3 Credit Hours**

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Military Science and Leadership (BAS)

Admission Program of Study Code BSMS

State CIP code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****

- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - Foreign Language
- ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours (Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours (Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours (Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours (Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Military Science and Leadership

MSL 3201 - Adaptive Team Leadership

3 Credit Hours (Fall)

Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3202 - Leadership in Changing Environments

3 Credit Hours (Spring)

Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, and apply principles and techniques of effective written and oral communication.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4301 - Developing Adaptive Leaders

3 Credit Hours (Fall)

Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4302 - Leadership in a Complex World

3 Credit Hours (Spring)

Capstone course to explore topics relevant to second lieutenants entering the army, describe legal aspects of decision making and leadership, analyze army organization from tactical to strategic level.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

These hours should be designed as a progression towards a student's future workforce or educational goals.

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

Total Program Credits Required: 120

Suggest Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Military Science and Leadership (BAS)
First Year
Fall Semester
GEB 3213 - Business and Administrative Communication 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
MSL 3201 - Adaptive Team Leadership 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
BUL 3320 - Law and Business 3 Credit Hours
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
MAN 3240 - Organizational Behavior 3 Credit Hours
MSL 3202 - Leadership in Changing Environments 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
FIN 4402 - Financial and Economic Management 3 Credit Hours
MSL 4301 - Developing Adaptive Leaders 3 Credit Hours
MAR 4333 - Marketing Strategy 3 Credit Hours

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

MSL 4302 - Leadership in a Complex World **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Supervision (BAS)

Admission Program of Study Code BSSP

State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***

- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours (Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Supervision

ISM 4011 - Information Systems Management

3 Credit Hours
(Spring)

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours
(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3903 - Operations Research

3 Credit Hours
(Fall)

Operations Research is a science of modeling and optimization. It allows to model real-world problems by using mathematics, statistics and computers. It provides us the tools and theories to solve real-world problems by finding the optimal solutions to models subject to constraints of time, labor, resource, materials and business rules. With Operations Research, people make intelligent decisions to develop and manage their processes and businesses.

Prerequisite(s): Upper division standing is required. STA 2023, MAC 1140, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4940 - Capstone: Supervision

3 Credit Hours
(Spring)

This capstone course will build upon and integrate the primary management skills and concepts introduced in prior

emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge. This course will also cover basic entrepreneurial principles, which will be integrated throughout the student-led projects.

Prerequisite(s): Senior standing and completion of program core and emphasis business courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Supervision (BAS) (BSSP)**First Year****Fall Semester**

GEB 3213 - Business and Administrative Communication **3 Credit Hours**

MAN 3052 - Management Philosophy and Practice **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

MAN 3903 - Operations Research **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 3320 - Law and Business **3 Credit Hours**

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3240 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year**Fall Semester**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 3593 - Logistics and Supply Chain Management-DNU **3 Credit Hours**

MAR 4333 - Marketing Strategy **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ISM 4011 - Information Systems Management **3 Credit Hours**

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

MAN 4940 - Capstone: Supervision **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Medical Coder/Biller (CCC)

Admission Program of Study Code MEDB

State CIP Code 0351070714

Core Courses

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
with

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

OR

BSC 2020C - Human Structure and Function

4 Credit Hours

(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours (Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1432 - Pathopharmacology

3 Credit Hours (Fall)

Introduction to the nature, cause, and treatment of disease entities and the body's defense mechanisms. Commonly used drugs will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2253 - CPT Coding - Part 1

3 Credit Hours (Spring)

Instruction and practice in basic CPT coding conventions, principles of classifying physician services using current procedural terminology (CPT-4), APC, and auditing procedures. Ethical standards of practice will be analyzed.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

(Previously listed as HIM1253)

HIM 2272 - Healthcare Reimbursement

3 Credit Hours (Summer)

Emphasis on billing regulations for the State of Florida. Course content includes LMRPS, Workers' Compensation laws, Florida Medicare, and claims for automobile accident injuries.

Prerequisite(s): HIM 2253 and HIM 2724 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2291 - CPT Coding Part 2

3 Credit Hours (Spring)

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, inpatient and outpatient prospective payment systems, encoding software and RBRVs.

Prerequisite(s): HIM 2253 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2724 - ICD Coding Part 1

**3 Credit Hours
(Fall)**

This course provides a foundation using ICD-10-CM/PCS coding conventions, rules, methodology and sequencing, data sets, documentation requirements, and coding resources.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

HIM 2729 - ICD Coding Part 2

**3 Credit Hours
(Fall)**

This course focuses on assigning appropriate ICD, DRG, and Level II (HCPCS) codes to a wide range of original source medical documents. This course increases the quality of code selection by applying the decision process in problem solving using well-defined medical record review methods and guidelines. Ethical practices will be discussed.

Prerequisite(s): HIM 2724 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2815C - Professional Practice Experience

**3 Credit Hours
(Summer)**

Working in a simulated, online environment, students will endeavor to code and bill using nationally recognized, American Health Information Management Association (AHIMA) simulation software.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

Total Core Credits Required: 37

Total Program Credits Required: 37**Notes:**

- Students must earn a grade of "C" or higher in each course in the curriculum in order to progress through the curriculum.
- Students must have a High School Diploma or GED to graduate from this program.

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Medical Coder/Biller (CCC) (MEDB)
Fall Semester BSC 2020C - Human Structure and Function 4 Credit Hours HSC 1531 - Medical Terminology 3 Credit Hours HIM 1432 - Pathopharmacology 3 Credit Hours HIM 2724 - ICD Coding Part 1 3 Credit Hours (Session 2) HIM 2729 - ICD Coding Part 2 3 Credit Hours (Session 3) Total Semester Hours: 16
Spring Semester CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours HIM 1000 - Health Information and Delivery Systems 3 Credit Hours HIM 1012 - Health Care and Legal Compliance 3 Credit Hours HIM 2253 - CPT Coding - Part 1 3 Credit Hours (Session 2) HIM 2291 - CPT Coding Part 2 3 Credit Hours (Session 3) Total Semester Hours: 15
Summer Semester HIM 2815C - Professional Practice Experience 3 Credit Hours HIM 2272 - Healthcare Reimbursement 3 Credit Hours Total Semester Hours: 6

Total Program Hours: 37

Music Production Technology (AS)

Admission Program Objective Code MUSC

State CIP Code 1650091300

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Audio Technology (Recording Arts) (CCC) (State CIP Code 0650060209).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

MUM 1620 - Audio and Acoustic Fundamentals

3 Credit Hours

(Fall, Spring, Summer)

Audio and Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening. The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio and recording equipment.

MUM 2300 - Introduction to the Music Industry

3 Credit Hours

(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours

(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises,

psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

Total Core Credits Required: 15

Technical Elective Courses

Select 31 credits from the following:

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and

advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

1 Credit Hour (Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- _____ Other Approved College Credits (MUL, MUM, MUN, MUS, MUT, MVB, MVK, MVP, MVS, MVV, MVW)
- _____ Other Approved College Credits

Total Technical Elective Credits Required: 31

Total Program Credits Required: 64

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Music Production Technology (AS) (MUSC)	Companion Certificate*
First Year	ATRA
Summer Semester MUT 1001 - Fundamentals of Music 3 Credit Hours Total Semester Hours: 3	√
Fall Semester MUM 1620 - Audio and Acoustic Fundamentals 3 Credit Hours MUT 1121 - Music Theory I - Ear Training and Sight Singing 3 Credit Hours MVV 1211 - Applied Music – Voice I 1 Credit Hour MUL 1010 - Music Appreciation 3 Credit Hours † ♦ ¶ MUN 1360 - Madrigal Singers I 1 Credit Hour ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Total Semester Hours: 14	√ √ √ √ √

Spring Semester	
MUM 2600 - Recording Techniques I 3 Credit Hours	√
MUT 1122 - Music Theory II - Ear Training and Sight Singing 3 Credit Hours	√
MVV 2221 - Applied Music – Voice II 1 Credit Hour	√
MUN 2361 - Madrigal Singers II 1 Credit Hour	√
MVS 1016 - Applied Strings – Guitar I 1 Credit Hour	√
General Education Mathematics Course 3 Credit Hours	
General Education Social Science Course 3 Credit Hours	
Total Semester Hours: 15	
Second Year	
Summer Semester	
MUM 2300 - Introduction to the Music Industry 3 Credit Hours	√
Total Semester Hours: 3	
Fall Semester	
MUM 2601 - Recording Techniques II 3 Credit Hours	√
MUT 2126 - Music Theory III – Ear Training and Sight Singing 3 Credit Hours	√
MVS 1016 - Applied Strings – Guitar I 1 Credit Hour	√
MUN 1710A - Rock and Jazz Ensembles I 1 Credit Hour	√
MUS 2930 - Music – Special Topics 3 Credit Hours	√
General Education Science Course 4 Credit Hours	
Total Semester Hours: 15	
Spring Semester	
MUM 2604 - Multi-Track Mixdown (Post Production) 3 Credit Hours	√
MUT 2127 - Music Theory IV – Ear Training and Sight Singing 3 Credit Hours	√
MVS 2026 - Applied Strings – Guitar II 1 Credit Hour	√
General Education Humanities Course 3 Credit Hours	

Additional General Education Credits 2 Credit Hours	
MUN 1720A - Rock and Jazz Ensembles II 1 Credit Hour	√
MUN 2361 - Madrigal Singers II 1 Credit Hour	√
Total Semester Hours: 14	
Total Program Hours: 64	
* Courses with √ can also be used in the Companion Certificate indicated: ATRA - Audio Technology (Recording Arts) (CCC)	

Nursing (AS)

Admission Program Objective Code NURS
State CIP Code 1351380100

The AS Nursing program at Northwest Florida State College is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

(404) 975-5000

<http://www.acenursing.us/accreditedprograms/programSearch.htm>

This program is a Selective Admission program subject to additional program policies. Policies are strictly enforced and students should work with a Student Success Navigator rather than self-advise. The admission criteria and process are subject to change; students should refer to the Selective Program Admissions/Nursing (AS) webpage for the most current information. All courses in the AS Nursing program, including general education and core courses, must be completed with a minimum grade of "C" to graduate with the AS Degree in Nursing.

General Education

Unless otherwise noted, select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings. A minimum grade of "C" in each General Education course is required.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ Humanities **3 Credit Hours**
- _____ Any core Mathematics course **3 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ◆
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SYG 2000 - Sociology

3 Credit Hours ◆ ◆
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or PSY 2012 - Psychology **3 Credit Hours ◆**

Total General Education Credits Required: 20

Core Courses

A minimum grade of "C" in each Core course is required.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

NUR 1021C - Nursing Process I

6 Credit Hours
(Fall, Spring)

This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psycho-social sciences in this first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to healthcare systems ethical-legal aspects of nursing practice, health and illness, communications, functional health patterns of clients, stress-adaptation, professional behaviors, and all steps of the nursing process with emphasis on assessment of older adult clients. Students begin socialization into the role of the Associate Degree Nurse as a member of an interdisciplinary healthcare team.

Prerequisite(s): Admission to the AS Nursing Program, BSC 1085C, ENC 1101, (MAC 1105 OR STA 2023)

Corequisite(s): NUR 1021L

Prereq/Corequisites: BSC 1086C, HUN 2201

Special Nursing Program policies may apply to this course.

NUR 1021L - Nursing Process I Clinical Experience

4 Credit Hours (Fall, Spring)

This course introduces students to the role of the Associate Degree Nurse in providing direct, holistic nursing care to young, middle-aged and older adults who are hospitalized or in community settings. Students are introduced to all steps of the nursing process with a focus on assessment skills. Students will identify self-learning needs and set their own goals for improvement. Critical thinking and working effectively with peers and other healthcare professionals as a team member is expected. The demonstration of caring behaviors and therapeutic communication as a provider of bedside, technical nursing care is emphasized. Students must demonstrate safe performance of basic nursing skills, including but not limited to medication administration, physical assessment, and comfort care.

Prerequisite(s): Admission to the AS Nursing Program

Corequisite(s): NUR 1021C.

Special Nursing Program policies may apply to this course.

NUR 1141 - Pharmacologic Principles in Nursing I

1 Credit Hour (Fall, Spring)

This course introduces students to concepts and principles of pharmacology related to safe administration of therapeutic agents within the nursing process framework. Students begin to learn major drug classifications and selected exemplars along with principles of safe, effective administration of drugs. Students will learn dosage calculations, factors that affect the absorption, excretion, distribution, and metabolism of drugs, as well as drug actions, adverse effects, and interactions.

Prerequisite(s): Admission to the AS Nursing Program

Special Nursing Program policies may apply to this course.

NUR 1142 - Pharmacologic Principles in Nursing II

1 Credit Hour (Fall, Spring)

An introduction to the role of the associate degree nurse in providing direct, holistic nursing care to young, middle-aged and elderly adults who are hospitalized or receiving care in community settings. Emphasis is on applying all steps of the nursing process with focus on assessment skills. Pre-requisite college foundation and nursing courses provide theoretical bases for nursing care. Critical thinking is an expected behavior along with skills in working ethically and effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care of hospitalized adults and nursing home residents.

Prerequisite(s): NUR 1141 or LPN licensure and admission to the Nursing Program

Corequisite(s): NUR 1231C and NUR 1750L

Special Nursing Program policies may apply to this course.

NUR 1231C - Nursing Process II

5 Credit Hours (Fall, Spring)

Application of the nursing process continues with emphasis on the planning and implementation of nursing care for clients experiencing threats to functional health patterns. Development of professional behaviors, such as developing therapeutic relationships continues with students working clients through life interactions. Students further develop critical thinking skills through case studies and simulation scenarios designed to provide students with problem solving skills in analyzing, planning and prioritizing care for clients whose health problems are more acute or chronic; the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief, and loss. Students learn basic management skills as a team member caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate.

Prerequisite(s): NUR 1021L NUR 1021C and NUR 1141;or LPN licensure; admission to the AS Nursing Program or permission from the program director

Corequisite(s): NUR 1750L and NUR 1142

Prereq/Corequisites: DEP 2004

Special Nursing Program policies may apply to this course.

NUR 1750L - Nursing Process II - Clinical Experience

4 Credit Hours (Fall, Spring)

This course builds on competencies presented in Nursing Process I regarding the role of the Associate Degree Nurse in providing direct, holistic nursing care for adult clients experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, and community settings provide students with opportunities to apply the nursing process in care of clients, including the older adult. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills.

Prerequisite(s): NUR 1021L or LPN licensure

Corequisite(s): NUR 1231C.

Special Nursing Program policies may apply to this course.

NUR 2233C - Nursing Process III

6 Credit Hours (Fall, Spring)

Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including during the childbearing process and children whose normal lines of defense have been invaded by stressors to the degree that hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development.

Prerequisite(s): NUR 1231C & NUR 1142 or approval from the program director.

Corequisite(s): NUR 2233L

Prereq/Corequisites: MCB 2010C

Special Nursing Program policies may apply to this course.

NUR 2233L - Nursing Process III – Clinical Experience

4 Credit Hours (Fall, Spring)

Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for the hospitalized child, the family during the maternity cycle, and adults whose health problems are more complex and/or chronic. Clinical sites include hospitals, health departments, clinics, physician offices, schools and other community settings. Conflict resolution skills are applied, as needed, to meet client and/or peer learning goals. Delegation skills with peers are also practiced. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this clinical course.

Prerequisite(s): NUR 1750L

Corequisite(s): NUR 2233C.

Special Nursing Program policies may apply to this course.

NUR 2241C - Nursing Process IV

5 Credit Hours (Fall, Spring)

Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical thinking skills in exploring case-based practice situations and work together in simulation seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development.

Prerequisite(s): Permission from the Director of Nursing or NUR 2233C; MAC 1105 or STA 2023

Corequisite(s): NUR 2241L, NUR 2811L

Prereq/Corequisites: SYG 2000

Special Nursing program policies may apply to this course.

NUR 2241L - Nursing Process IV – Clinical Experience

3 Credit Hours (Fall, Spring)

Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their four-week clinical practicum prior to graduation from the program. Students will also shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Other clinical activities will include experiences in the emergency department and critical care units. Students must demonstrate competency in all behaviors required for an Associate Degree Nursing graduate.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2811L

Special Nursing Program policies may apply to this course.

NUR 2811L - Nursing Practicum

3 Credit Hours (Fall, Spring)

This course is a capstone course and provides a time during the last four weeks of the nursing program in which students begin to transition from the student role into the graduate role as an associate degree nurse. Students attend seminar hours and complete standardized testing for evaluation in proficiency in applying all steps in the nursing process with emphasis on evaluating safe nursing care outcomes. Students complete clinical practice hours with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients. The focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry level. Clinical experiences provide hands-on learning opportunities, enhancing clinical thinking, safe nursing judgment, and clinical confidence in skills. Clinical experiences take place in a variety of clinical settings and work schedules.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2241L

Special Nursing Program policies may apply to this course.

LPNs who successfully complete NUR 1142, NUR 1231C, NUR 1750L, NUR 2233C and NUR 2233L will receive credit for NUR 1021C, NUR 1021L, and NUR 1141.

Total Core Credits Required: 52

Technical Electives (Not Required)

NUR 1940L - Nursing Clinical Externship

3 Credit Hours (Summer)

This elective course is designed to offer students the opportunity to gain additional clinical skills practice during the summer semester. Working with a preceptor and the nursing faculty in area hospitals, clinics, or community settings, the student will be able to perform all skills learned in successfully completed nursing courses.

Prerequisite(s): admission to the AS Nursing Program; NUR 1750L or NUR 1021L

Special Nursing Program policies may apply to this course.

Total Program Credits Required: 72**Suggested Two Year Academic Plan**

This program admits students twice per year to being NUR courses in the fall and spring semesters. Below is a sample academic plan for these students admitted in the identified semester.

Nursing (AS) (NURS)
First Year
Summer or Fall Semester BSC 1085C - Anatomy and Physiology I 4 Credit Hours ♦ ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics Core General Education course* 3 Credit Hours ♦ Total Semester Hours: 10
Fall or Spring Semester ("Semester 1 in Nursing Program") BSC 1086C - Anatomy and Physiology II 4 Credit Hours HUN 2201 - Nutrition 3 Credit Hours NUR 1021C - Nursing Process I 6 Credit Hours NUR 1021L - Nursing Process I Clinical Experience 4 Credit Hours NUR 1141 - Pharmacologic Principles in Nursing I 1 Credit Hour Total Semester Hours: 18
Spring or Fall Semester ("Semester 2 in Nursing Program") DEP 2004 - Human Growth and Development 3 Credit Hours Humanities Core General Education Course ** 3 Credit Hours ♦ NUR 1231C - Nursing Process II 5 Credit Hours NUR 1750L - Nursing Process II - Clinical Experience 4 Credit Hours NUR 1142 - Pharmacologic Principles in Nursing II 1 Credit Hour Total Semester Hours: 16
Second Year

Fall or Spring Semester ("Semester 3 in Nursing Program")

MCB 2010C - Microbiology, Allied Health **4 Credit Hours**

NUR 2233C - Nursing Process III **6 Credit Hours**

NUR 2233L - Nursing Process III – Clinical Experience **4 Credit Hours**

Total Semester Hours: 14

Spring or Fall Semester ("Semester 4 in Nursing Program")

SYG 2000 - Sociology **3 Credit Hours** ♦ ♦ or PSY 2012 - Psychology **3 Credit Hours** ♦

NUR 2241C - Nursing Process IV **5 Credit Hours**

NUR 2241L - Nursing Process IV – Clinical Experience **3 Credit Hours**

NUR 2811L - Nursing Practicum **3 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 72

* While any Core General Education Mathematics course is acceptable, Statistics (STA 2023) should be strongly considered because it is a required course in the RN to BSN program.

** AS Core General Education Humanities include the Speaking-Across-the-Curriculum (SATC) requirement. Students who already have a humanities course that does NOT include SATC, may take another humanities course that meets the SATC requirement or a speech course.

Nursing (BS)**Admission Program Objective Code BSNG**

State CIP Code 1105138012

The baccalaureate Nursing program at Northwest Florida State College is accredited by the Commission on Collegiate Nursing Education (<http://www.ccneaccreditation.org>).

The program is an R.N. to B.S.N. degree career ladder and is open to applicants who currently hold a valid Registered Nursing license and have completed an ADN or diploma program. The program can be completed in three to four semesters. Program content for the B.S.N. program meets those specified in Florida's A.S. to B.S. Articulation Manual. All theory courses are taught on-line from the NWF State College Niceville campus and clinical activities can be completed near the student's residence.

Lower Division Courses

Unless otherwise specified, select courses from each category, see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

(To include GE courses that are required B.S.N. Common Prerequisites)

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ____ - General Education Math **3 Credit Hours**

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - General Education Humanities (SATC) **6 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- _____ - General Education Physical Science **4 Credit Hours**

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - GE Social Science/History/Government **3 Credit Hours**

Total General Education Credits: 36

B.S.N. Common Prerequisite Courses

(Additional Common Prerequisites to those listed above under GE)

DEP 2004 - Human Growth and Development

3 Credit Hours

(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours

(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours

(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

- _____ CHM, BSC, BCH, PCB, PHY Course (CHM, PHY may be used for GE if 4 hours) **3 Credit Hours**

Total Common Prerequisite Courses: 13

Foreign Language

Credits must be earned in the same foreign language; the requirement may also be satisfied with two years of the same high school foreign language or appropriate score on an approved CLEP examination.

Total Foreign Language Credits: 8

Lower Division Nursing and Other Courses

Generally, these are the NUR courses required in the associate degree nursing program; credits may vary depending on how many additional non-NUR credits are needed to meet associate degree requirements.

Total Lower Division Nursing and Other Courses: 10-44

Total Lower Division Credits: 76

Lower division credits may differ from this number depending on whether or not the student must complete additional prerequisites or foreign language credits.

Upper Division Courses

Core Courses

NUR 3080 - Dimensions of Baccalaureate Nursing Practice

**3 Credit Hours
(Fall, Summer)**

This course will provide Registered Nurses, who are returning to school to earn a Baccalaureate degree, an opportunity to advance professional practice concepts. As designed, the course engages the student intellectually in an ongoing professional dialogue and journey with peers, colleagues, and instructors that serves to broaden the student's professional development and builds on preexisting knowledge and experiences. The course curriculum is written for adult learners with the characteristics of self-direction, prior experience, applicability to practice, and motivation to meet the challenge to expand their knowledge base and to utilize advanced critical thinking skills.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3955 - Portfolio I

**1 Credit Hour
(Fall, Summer)**

This course will provide RN to BSN students an opportunity to develop an electronic professional portfolio to express one's professional nursing expertise and proficiency.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3067C - Health Assessment

**3 Credit Hours
(Fall, Summer)**

This course is designed to develop the student's knowledge for obtaining and recording a systematic, comprehensive health history, psychosocial assessment, and physical examination of the adult. The course involves the synthesis of nursing, biologic, psychologic, and sociocultural knowledge and theories as they apply to the findings obtained in the comprehensive health assessment of clients of various ages. During the fieldwork experience, emphasis will be placed on collection of a database through physical assessment, history taking and interviewing.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3071 - Writing for Success in Nursing

1 Credit Hour
(Fall, Spring, Summer)

This course is designed to develop the student's knowledge for writing at the upper division nursing level. The course includes information regarding use of APA format and scholarly writing resources.

Prerequisite(s): Student must be a Registered Nurse to take this course.

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research

3 Credit Hours
(Fall, Spring)

This course is designed to provide the RN to BSN student with an introduction to the research process and evidence based practice. The purpose of the course is to stimulate interest in nursing research; to enable students to understand and judge the usefulness of scientific findings; and to develop an understanding of how clinical proficiency is combined with experimental proof to produce nursing practices based upon evidence. An on-line teaching method is used with optional workshops available to students.

Prerequisite(s): STA 2023.

NUR 4615C - Family and Community Health

5 Credit Hours
(Fall, Spring)

The Family and Community Health Nursing course is designed to facilitate the conceptualizing of family, population groups, and community as units of care from diverse cultures, ethnic, and social backgrounds. The student is provided a fieldwork opportunity to assess the health needs of selected families and groups in the community setting with selected health promotion, risk reduction, and disease prevention. The nursing process is used to examine multiple influences impacting life-course experiences of families and communities to enhance functioning.

Prerequisite(s): NUR 3067C, NUR 3080, admission to the BSN program and completion of all General Education requirements.

NUR 4827C - Nursing Leadership and Management

5 Credit Hours
(Spring, Summer)

This course provides students with an evidence-based study of leadership, collaboration, and coordination in healthcare settings. Students develop an evidence based paper to deal with key leadership and management issues related to professional goals. Nursing leadership and management fieldwork focuses on the roles and functions of the professional nurse in these roles. Issues associated with healthcare delivery are explored. Fieldwork provides an opportunity to plan, implement and evaluate a change in the practice of nursing.

Prerequisite(s): NUR 3080, NUR 4165, NUR 3067C, NUR 4615C.

NUR 4956 - Portfolio II

1 Credit Hour
(Spring, Summer)

This course will provide students an opportunity to complete and evaluate their electronic professional portfolio to express their professional nursing expertise and proficiency.

Prerequisite(s): NUR 3955, NUR 3080; Pre or Corequisite: NUR 4827C.

- NUR ____ - Upper Division Nursing Elective (See Below) **3 Credit Hours**

NUR 3837 - Health Care Issues

2 Credit Hours
(Fall, Spring)

This course provides a forum for the exploration and evaluation of concerns germane to contemporary nursing. The focus of this course is on the nursing profession and current major issues and problems that concern it. Social forces influencing changes in the nursing profession are analyzed in terms of historical antecedents and their current manifestations. Recently passed, and pending legislature at both the national and state levels is emphasized.

Prerequisite(s): Current RN Licensure.

NUR 4125 - Clinical Pathophysiology

3 Credit Hours
(Fall, Spring)

This course examines in detail the underlying process involved in the development, evolution, manifestations, and complications of common clinical diseases across the life span, and compares normal and abnormal states. The biological bases for therapeutic clinical actions are examined.

Prerequisite(s): NUR 3067C

Total Upper Division Nursing Credits: 30

Upper Division Nursing Electives

NUR 3678 - Nursing Care of Vulnerable Populations

3 Credit Hours
(Offered as needed)

Caring for the vulnerable members of society is a function nurses perform without regard for their own ambitions, personal safety, and financial security. This course is designed to pull together material from different cultures and at risk groups of individuals considered vulnerable populations. Key concepts will be discussed that will provide a basic structure for caring for the vulnerable, the relevance of nursing theories to vulnerable populations, nursing research showing the kinds of phenomena nurses study, and many ideas about learning to work with and advocate for vulnerable individuals.

NUR 3826 - Nursing Ethics

3 Credit Hours
(Offered as needed)

This course provides an in-depth exploration of ethical principles and moral reasoning as the foundation of nursing

practice. The ANA Code of Ethics will be used as a framework for examining current issues in healthcare delivery across the age span from reproductive issues to end-of-life care.

Prerequisite(s): Must be an RN or ASN student.

NSP 4275 - Introduction to Critical Care Nursing

3 Credit Hours
(Offered as Needed)

This course examines the needs of the critically ill client. As part of the human experience, the integrity of the individual and family may be disrupted by a critical illness. During such time, the critical care nurse assists the individual and family to restore life processes to a state of dynamic equilibrium. This course emphasizes the involvement through use of scientific rationale and application of the nursing process in providing care to the individual client and family. Critical care concepts and skills for promoting client and family well-being are stressed.

NSP 3640 - Nursing Care of Military and Veteran Populations

3 Credit Hours
(Spring)

This course is designed to identify the unique healthcare needs of military and veteran populations in the United States in order to prepare students and practicing nurses to develop competence in designing nursing interventions within civilian and government agencies in which military members and veterans seek healthcare. In accordance with the ANA's pledge (2012) to raise awareness of the unique conditions and needs of military veterans and their families, this course supports the Joining Forces initiative to further nursing training to include specialized topics such as traumatic brain injury, posttraumatic stress disorder, trauma rehabilitation, and understanding the military and veteran's healthcare delivery system.

SPN 3036 - Spanish for Health Care Providers

3 Credit Hours
(Offered as needed)

Spanish for Health Care Providers is designed for individuals majoring in nursing or working in health-related areas. The course focuses on vocabulary needed for the healthcare workplace, with grammar taught as a task-based practical skill. Students will learn phrases used to complete health assessments which include conducting interviews, filling out forms, writing reports, and reading and understanding medical articles and brochures. Prevalent disease processes will be discussed as well as cultural practices that affect health care, specifically the health care of Spanish-speaking patients. This course does not fulfill any part of the Florida state language requirements.

Portfolio

Credits are awarded after successful completion of the Portfolio I and II courses

Total Portfolio Credits: 14

Total Upper Division Credits: 44

Total Program Credits Required: 120**Suggested Two Year Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Nursing (BS) (BSNG)
First Year
Fall Semester NUR 3955 - Portfolio I 1 Credit Hour NUR 3071 - Writing for Success in Nursing 1 Credit Hour NUR 3080 - Dimensions of Baccalaureate Nursing Practice 3 Credit Hours NUR 3067C - Health Assessment 3 Credit Hours ENC 1102 - English Composition II 3 Credit Hours ¶ Total Semester Hours: 11
Spring Semester NUR 4125 - Clinical Pathophysiology 3 Credit Hours NUR 3837 - Health Care Issues 2 Credit Hours General Education Humanities Course 3 Credit Hours General Education Social Science History/Government Course 3 Credit Hours Total Semester Hours: 11
Summer Semester General Education Physical Science Course (CHM or PHY) 4 Credit Hours STA 2023 - Statistics 3 Credit Hours ♦ Foreign Language I 4 Credit Hours Total Semester Hours: 11
Second Year
Fall Semester

NUR 4615C - Family and Community Health **5 Credit Hours**

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research **3 Credit Hours**

Foreign Language II **4 Credit Hours**

Total Semester Hours: 12

Spring Semester

NUR 4827C - Nursing Leadership and Management **5 Credit Hours**

BSN Nursing Elective **3 Credit Hours**

NUR 4956 - Portfolio II **1 Credit Hour**

Total Semester Hours: 9

Portfolio credits are awarded after successful completion of NUR 4827C and NUR 4956 **14 Credit Hours**

Total Portfolio Credits: 14

Total Upper Division Program Hours: 68

Paralegal Studies (AS)

Admission Program Objective Code PARA

State CIP Code 1722030200

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Natural Sciences **3 Credit Hours**
- ____ Social Sciences **3 Credit Hours**
- ____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

BUL 2241 - Business Law I

3 Credit Hours

(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1003 - Introduction to Paralegal Studies

3 Credit Hours
(Fall)

This course is designed to give students a broad understanding of the nature of the paralegal profession and the elements contained within the profession, as well as its responsibility.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1114 - Legal Research and Writing

3 Credit Hours
(Spring)

This course is designed to provide the student with necessary skills and knowledge required in legal research/case

analysis and legal writing.

Prerequisite(s): PLA 1003 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1600 - Wills, Trusts, and Probate

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of estate planning, wills, and probate administration.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1800 - Introduction to Family Law

3 Credit Hours
(Spring)

An introduction to practices as they relate to family law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2273 - Tort Law

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of tort law with objectives centered on personal injury torts.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

OST 1355 - Records Management

3 Credit Hours
(Fall)

Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2949 - Internship - Paralegal

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): completion of a minimum of 12 credit hours in the appropriate discipline, including PLA 1003 and permission of the instructor is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

*This college credit course is not intended for transfer and may not be applied toward the AA degree.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Paralegal Studies (AS) (PARA)
First Year
Fall Semester PLA 1003 - Introduction to Paralegal Studies 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education - 3 Credit Hours Technical Elective 3 Credit Hours PLA 1005 - Legal Terminology 3 Credit Hours OR PLA 1013 - Introduction to the Legal System 3 Credit Hours Total Semester Hours: 15
Spring Semester BUL 2241 - Business Law I 3 Credit Hours PLA 1114 - Legal Research and Writing 3 Credit Hours Humanities General Education - 3 Credit Hours Social Science General Education - 3 Credit Hours PLA 1013 - Introduction to the Legal System 3 Credit Hours OR PLA 1005 - Legal Terminology 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester PLA 2273 - Tort Law 3 Credit Hours Science General Education - 3 Credit Hours PLA 1600 - Wills, Trusts, and Probate 3 Credit Hours Technical Elective - 3 Credit Hours Technical Elective - 3 Credit Hours Total Semester Hours: 15
Spring Semester

PLA 1203 - Civil Procedure **3 Credit Hours**

PLA 1800 - Introduction to Family Law **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Paramedic (CCC)

Admission Program Objective Code EMPM

State CIP Code 0351090405

Admission will be through a Limited Access application process. Graduates will be eligible to sit for the Paramedic certification exam. The curriculum forms the core of the Emergency Medical Services A.S. degree (State CIP Code 1351090402). Students may "add on" general education credits and some college credit electives to the Paramedic certificate and earn the A.S. degree. Students interested in pursuing this program should contact the Emergency Medical Services Office (850) 729-5378.

Core Courses

BSC 2020C - Human Structure and Function

4 Credit Hours

(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

OR BSC 1085C - Anatomy and Physiology I **4 Credit Hours** ♦ AND BSC 1086C - Anatomy and Physiology II **4 Credit Hours**

DSC 2055 - Issues in Disaster Response

1 Credit Hour

(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

EMS 1337 - Defensive Tactics

1 Credit Hour

(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 2231C - Paramedic Processes I

5 Credit Hours (Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

5 Credit Hours (Spring)

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

2 Credit Hours (Spring)

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

1 Credit Hour (Offered as needed)

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to

protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2425L - Paramedic Externship

4 Credit Hours (Spring)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

5 Credit Hours (Fall)

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

5 Credit Hours (Spring)

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

2 Credit Hours (Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

1 Credit Hour
(Offered as needed)

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour
(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour
(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour
(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic

Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

HSC 1531 - Medical Terminology

3 Credit Hours (Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 42

Preschool Specialization (CCC)

**Admission Program of Study Code CCPS
State CIP Code 0419070908**

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours (Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours (Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours

(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours

(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

Total Core Credits Required: 12

Total Program Credits Required: 12

Project Management - Acquisitions (BAS)

Admission Program of Study Code BSAQ

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required courses for the Emphasis in Acquisitions

BUL 4333 - Contract Formation and Administration

**3 Credit Hours
(Fall, Spring)**

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4931 - Acquisition Law Seminar

**3 Credit Hours
(Spring)**

This course addresses contract law as applicable to formation and administration of contracts with private and governmental agencies, with emphasis on the federal government. The following topics are also included: concepts of responsiveness and responsibility, bidding procedures, mistakes, negotiation procedures, changes, claims and dispute resolution. Students will explore the typical contracting problems that can lead to litigation.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3574 - Acquisition Management

**3 Credit Hours
(Spring)**

Students will be exposed to the fundamentals of government acquisitions. This course provides conceptual material on government acquisitions, to include program planning, execution, and control. Students will be introduced to the elements of program risk and learn risk management techniques. The systems engineering process will be emphasized to include work breakdown structures, cost -- benefit analysis, and scheduling.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4930 - Capstone: Acquisition Management

**3 Credit Hours
(Spring)**

In this seminar, students will have the opportunity to participate in hands-on projects applying the techniques in MAN 3574 - Acquisition Management. Emphasis will be on government acquisition management. Students will create a work-breakdown structure, a project schedule, and perform a cost-benefit analysis of alternatives. Earned value management will be introduced as a method of program control. Students will also identify potential risk areas and

suggest mitigation plans.

Prerequisite(s): Senior standing and completion of program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Acquisitions (BAS) (BSAQ)
First Year

Fall Semester

GEB 3031 - Contemporary Business Practices **3 Credit Hours**

GEB 3213 - Business and Administrative Communication **3 Credit Hours**

BUL 3320 - Law and Business **3 Credit Hours**

MAN 3052 - Management Philosophy and Practice **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3574 - Acquisition Management **3 Credit Hours**

MAN 3583 - Project Management **3 Credit Hours**

BUL 4333 - Contract Formation and Administration **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year**Fall Semester**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 4931 - Acquisition Law Seminar **3 Credit Hours**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4930 - Capstone: Acquisition Management **3 Credit Hours**

Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Logistics (BAS)

Admission Program of Study Code BSLG

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours (Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

**3 Credit Hours
(Fall)**

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

**3 Credit Hours
(Spring)**

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

**3 Credit Hours
(Fall, Spring)**

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Logistics

ENV 4610 - Sustainable Logistics

**3 Credit Hours
(Spring)**

This course introduces students to current and future trends in logistics technology, policy and sustainability. Topics include, source sustainability, environmental impacts of existing and emerging technologies, and local environmental conditions and the global climate.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3505 - Production Operations and Logistics Management

3 Credit Hours

(Spring)

This course examines the integration of production operations and logistics management and how this enables an organization to compete successfully in business. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, and inventory management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours

(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4570 - Purchasing and Materials Management

3 Credit Hours

(Fall)

The management of purchasing and the materials for production processes. Cost/price analysis, computer systems, forecasting, materials requirements, negotiations, and contracting are included.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

These hours should be designed as a progression towards a student's future workforce or educational goals.

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

Project Management – Logistics (BAS)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
MAN 3583 - Project Management 3 Credit Hours
MAN 3593 - Logistics and Supply Chain Management 3 Credit Hours
MAN 3505 - Production Operations and Logistics Management 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
GEB 3444 - Business Trends and Issues 3 Credit Hours
MAN 4570 - Purchasing and Materials Management 3 Credit Hours
QMB 3250 - Quantitative Methods for Business Decisions 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15

Spring Semester

ENV 4610 - Sustainable Logistics **3 Credit Hours**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Project Management (BAS)

Admission Program of Study Code BSPR

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

**** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.**

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours (Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

**3 Credit Hours
(Fall)**

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

**3 Credit Hours
(Fall)**

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

**3 Credit Hours
(Spring)**

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

**3 Credit Hours
(Fall, Spring)**

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Project Management

BUL 4333 - Contract Formation and Administration

3 Credit Hours
(Fall, Spring)

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3120 - Leadership and Group Dynamics

3 Credit Hours
(Spring)

An applied leadership course with a focus on case studies, projects and group interaction; includes theoretical background on group dynamics, small group behavior and motivation, power, types of groups, verbal and non-verbal communication skills and team-building. Emphasis will be placed on sociological and psychological dimensions of inter-group relations, including analysis and problem-solving through simulations, cases and similar activities which reflect a general business perspective, as well as leadership and group dynamics across a variety of business units/functions.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and MAN 3052, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours
(Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

- ____ Approved Upper Division Elective **3 Credit Hours**

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG

BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Project Management (BAS) (BSPR)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours

Total Semester Hours: 15

Spring Semester

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3120 - Leadership and Group Dynamics **3 Credit Hours**

MAN 3583 - Project Management **3 Credit Hours**

BUL 4333 - Contract Formation and Administration **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

GEB 3444 - Business Trends and Issues **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Approved Upper Division Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4931 - Capstone: Project Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Quality Improvement (BAS)

Admission Program of Study Code BSQU
State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- ____ - General Education Biological Sciences **3 Credit Hours***
- ____ - General Education Physical Sciences **3 Credit Hours***
- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - Foreign Language
- ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

**3 Credit Hours
(Spring)**

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

**3 Credit Hours
(Fall, Spring)**

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Quality Improvement

MAN 3593 - Logistics and Supply Chain Management

**3 Credit Hours
(Fall)**

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4520 - Quality Management

**3 Credit Hours
(Spring)**

This course examines the significance of quality as a primary competitive strategy for tomorrow's successful business organizations. The impact of quality focus on increasing customer satisfaction is changing the manner in which business organizations function. Students will recognize that quality focused business organizations are evolving into very different environments in which to work and manage. This quality imperative is relevant for both industrial and service sector organizations. Students will be exposed to the critical issues of total quality management through reading, case studies, class discussion, field trips and outside speakers. The students are expected to gain insight and understanding regarding the meaning of quality, how organizations develop a quality focus, and the continuous nature of quality management. This course is appropriate for students who have an interest in: (1) managing the total quality program in a business organization, and/or (2) working for a business organization which already made a strong commitment to total quality management.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4555 - Quality Certification: ISO 9000

3 Credit Hours (Fall)

A comprehensive study of internationally uniform quality standards (ISO 9000 and the steps to individual and organizational certification; includes management responsibility, quality system documentation, contract review, design control, process control, inspection and testing, corrective actions and other certification topics.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours (Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Quality Improvement (BAS) (BSQU)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours

MAN 3583 - Project Management **3 Credit Hours**

MAN 3593 - Logistics and Supply Chain Management-DNU **3 Credit Hours**

MAN 4520 - Quality Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

MAN 4555 - Quality Certification: ISO 9000 **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4931 - Capstone: Project Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Technology Management (BAS)

Admission Program of Study Code BSTM

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- ____ - General Education Biological Sciences **3 Credit Hours***
- ____ - General Education Physical Sciences **3 Credit Hours***
- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including

persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Technology Management

ISM 3220 - Network Technologies for Information Professionals

3 Credit Hours
(Fall)

This course is designed to give the student an understanding of the various networking technologies and their practical application in the management of a business. The course also covers the technical issues involved in designing and implementing an efficient network for voice, data, and information networks.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3232 - Software Essentials

3 Credit Hours
(Fall)

This course covers a broad range of software topics as they apply to software management and systems analysis and design. Topics include, but are not limited to programming, the systems development life cycle (SDLC), systems management, interface design and Internet technology.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3323 - Applications in Information Security

**3 Credit Hours
(Spring)**

This course helps develop the important security concepts relative to software application development and access control that provide the knowledge and skills necessary for the successful management of information security in an organization. Students will understand the environment where software is designed and developed as well as the critical role software plays in providing security to an organization's information systems. The course focuses on software development concepts that relate to security, and how access control methodologies fit into the entire enterprise architecture.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4011 - Information Systems Management

**3 Credit Hours
(Spring)**

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Total Electives Course Requirement: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Technology Management (BAS) (BSTM)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
ISM 3232 - Software Essentials 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3583 - Project Management 3 Credit Hours
ISM 3323 - Applications in Information Security 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
ISM 3220 - Network Technologies for Information Professionals 3 Credit Hours

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

ISM 4011 - Information Systems Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Radiography (AS)

Admission Program Objective Code RADT

State CIP Code 1351090700

The Radiography program is based on selective admission, subject to additional policies and licensure requirements. Students attend classes at the Niceville Campus, and are assigned to clinical rotations at various healthcare facilities in the district. Graduates are eligible to sit for the ARRT certification exam. For additional information contact the Health Technology Department at (850) 729-6444.

Please note: In order to be a part of the **Radiography program applicant pool**, students must declare Radiography as their intended major on the online admissions application.

General Education

Unless otherwise noted, select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ - Communication Skills **3 Credit Hours**
- _____ - Humanities **3 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

MAC 1105 - College Algebra , an equivalent, or higher level math course **3 Credit Hours**

Total General Education Credits Required: 20

Core Courses

RTE 1000 - Introduction to Radiologic Technology

2 Credit Hours
(Summer, Offered as needed)

This course is designed to provide an overview of the history of radiography and the role and scope of practice of the practitioner in the healthcare delivery system. Organizations, accreditation, federal agencies, regulatory agencies (including OSHA), and professional credentialing will be discussed. Content includes a fundamental background in medical law, ethics, human diversity, and patient consent. The student will examine a variety of ethical issues and dilemmas found in clinical practice, as well as developing a better understanding of patients, the patient's families, and professional peers through comparison of diverse populations based on value systems, cultural and ethnic influences, communication styles, and socioeconomic influences. Radiographic medical terminology and pharmacology will be covered. Site specific clinical education paperwork will be completed. Background check, drug screening, training, and clinical site approval mandatory.

Prerequisite(s): Admission to the Radiography Program.

RTE 1111 - Introduction to Radiographic Patient Care

2 Credit Hours
(Fall)

This course is designed to prepare radiography students to provide basic patient care. Basic concepts of patient care will be described, as well as infection control procedures and standard precautions. This course includes hospital specific training. Health risks, life stages, HIV/AIDs and domestic violence will be discussed. This course also includes an introduction to medical and radiographic terminology. Topics include vital signs, venipuncture, body mechanics and transport, verbal/nonverbal communication, and some pharmacology.

Prerequisite(s): admission to the Radiography Program.

RTE 1418 - Radiographic Techniques I

3 Credit Hours

(Fall)

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. This course introduces the student to a comprehensive study and theory of the production of x-rays and primary exposure factors of radiographic imaging. The image parameters of density, contrast, recorded detail, image distortion and blur will be studied as well as ancillary devices and equipment required to produce a quality radiographic image. Digital imaging with related accessories will be emphasized. Class demonstrations and exercises are used to demonstrate application of theory.

Prerequisite(s): MAC 1105 or other Gordon Rule math course and admission to the Radiography Program.

RTE 1457C - Radiographic Techniques II

4 Credit Hours

(Spring)

This course is a continuation of RTE 1418 Radiographic Techniques I. Course content includes the basics of magnetism, electricity, motors, generators, rectifying systems, x-ray tube and filament circuitry. Topics in electromagnetism such as self and mutual induction, high voltage transformation, and AC rectification will be emphasized. An introduction of special radiographic methods will include automatic exposure control, computers, fluoroscopy and image intensification, subtraction radiography, conventional tomography, digital image receptors, and digital image acquisition and manipulation.

Prerequisite(s): RTE 1418.

Corequisite(s): RTE 1513C

RTE 1503C - Radiographic Procedures I

4 Credit Hours

(Fall)

This course is designed to provide the Radiography student with instruction in radiographic examinations of the chest, abdomen, upper extremity and lower extremity. An introduction to medical and radiographic terminology, radiographic anatomy, and image critique are also included.

Prerequisite(s): BSC 1085C and admission to the Radiography program.

RTE 1513C - Radiographic Procedures II

**4 Credit Hours
(Spring)**

This course is a continuation of RTE 1503C. It is designed to provide the student with instruction in radiographic procedures and anatomy in the distal extremities, hip region, spine, ribs, and sternum and the cranium. Critical thinking, medical and radiographic terminology, as well as image critique are emphasized.

Prerequisite(s): RTE 1503C, RTE 1804L , and BSC 1086C

Corequisite(s): RTE 1814L.

RTE 1804L - Radiography Clinical Education I

**3 Credit Hours
(Fall)**

This course involves the practical application of the theories covered in RTE 1503C and RTE 1000. Rotations provide experience with various imaging systems, protocols, and patient care. Students observe, assist and perform basic radiographic procedures (chest, abdomen and extremities) under direct supervision. This course emphasizes patient care and critical thinking. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1000

Corequisite(s): RTE 1503C

RTE 1814L - Radiography Clinical Education II

**3 Credit Hours
(Spring)**

This course is a continuation of Radiography Clinical Education I. This clinical training emphasizes lower and upper extremity. Medical and radiographic terminology, patient care, critical thinking and communication skills are emphasized. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1804L

Corequisite(s): RTE 1513C.

RTE 1824L - Radiography Clinical Education III

**4 Credit Hours
(Summer)**

This course is a continuation of Radiography Clinical Education II. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I and II. The student will gain experience and develop clinical competence in general radiographic procedures such as the cranium and specialized contrast studies. Advanced patient care skills, critical thinking, imaging and exposure techniques, radiation protection application and image processing will be emphasized. This rotation covers clinical experience in all phases of fundamental radiologic procedures and image critique. Students will rotate through ancillary departments in this course.

Prerequisite(s): RTE 1814L

Corequisite(s): RTE 2523C.

RTE 2061 - Radiographic Preparation for Practice

4 Credit Hours
(Spring)

This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover patient care and education, image production, equipment operation and maintenance, radiographic procedures and radiation protection. The student will also be given simulated registry examinations for practice and assessment purposes.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2854L.

RTE 2385 - Radiographic Protection and Biology

3 Credit Hours
(Fall)

This course is designed to provide the student with an overview of the principles of interaction of ionizing radiation with living systems. Ionizing effects on molecules, cells, tissues and the body as a whole are presented, along with factors affecting biological response, including; acute, chronic, stochastic and non-stochastic effects. This course is also designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and healthcare organizations are incorporated, as are the various methods of monitoring radiation exposure and acceptable dose limit values.

Prerequisite(s): RTE 1000, RTE 1418, RTE 1457C, RTE 2523C

Corequisite(s): RTE 2844L.

RTE 2473 - Radiographic Quality Assurance

2 Credit Hours
(Fall)

This course is designed to introduce the radiography student to evaluation methodology of radiographic systems to assure consistency in the production of quality images. Image critique, fluoroscopy, malfunctions, and specifications are some of the topics covered in the course.

Prerequisite(s): RTE 1418, RTE 1457C

Corequisite(s): RTE 2844L.

RTE 2523C - Radiographic Procedures III

3 Credit Hours
(Summer)

This course is a continuation of RTE 1513C covering cranium procedures and positioning. It is designed to provide the student with instruction in more complex radiographic procedures such as fluoroscopy, urinary studies, bone age, trauma, pediatrics, mobile and surgical radiography. Included is instruction in additional modalities and studies such as CT, MRI, arthrography, myelography, and vascular studies. Attention will be given to the specialized equipment, contrast media, critical thinking and techniques necessary to perform these procedures. Radiographic anatomy, pathology, and critique of images are included in this course.

Prerequisite(s): RTE 1513C

Corequisite(s): RTE 1824L.

RTE 2533C - Radiographic Procedures IV

**2 Credit Hours
(Fall)**

This is a continuation of RTE 2523C, with emphasis on special procedures and additional modalities. Students are required to complete observations hours within specialty areas.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2844L

RTE 2571 - Introduction to Computed Tomography

**1 Credit Hour
(Spring)**

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Content is not intended to result in clinical competency.

Prerequisite(s): RTE 1418

RTE 2782 - Radiographic Pathology

**3 Credit Hours
(Spring)**

This course is designed to introduce theories of disease causation and the pathophysiologic disorder that compromise healthy persons. Etiology, pathophysiologic responses, clinical manifestations, and radiographic appearance of alterations in body systems will be presented. Emphasis will be placed on pathological findings on diagnostic radiographic images.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2854L.

RTE 2844L - Radiography Clinical Education IV

**5 Credit Hours
(Fall)**

This course is a continuation of RTE 1824L. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I, II and III. The student will gain experience and develop clinical competence in specialized imaging procedures, and mobile, surgical and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 1824L

Corequisite(s): RTE 2385.

RTE 2854L - Radiography Clinical Education V

5 Credit Hours

(Spring)

This course is a continuation of RTE 2844L. The terminal objective for this course is to prepare the student for employment as an entry level technologist. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I-IV and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2061.

All RTE courses must be completed with a grade of 75 or higher to progress in the Radiography Program.

Total Core Credits Required: 57

Total Program Credits Required: 77

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Radiography (AS) (RADT)
First Year
Summer Semester
BSC 1085C - Anatomy and Physiology I 4 Credit Hours ♦
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
MAC 1105 - College Algebra 3 Credit Hours ♦
RTE 1000 - Introduction to Radiologic Technology 2 Credit Hours
Total Semester Hours: 12

Fall Semester

BSC 1086C - Anatomy and Physiology II **4 Credit Hours**

RTE 1111 - Introduction to Radiographic Patient Care **2 Credit Hours**

RTE 1503C - Radiographic Procedures I **4 Credit Hours**

RTE 1418 - Radiographic Techniques I **3 Credit Hours**

RTE 1804L - Radiography Clinical Education I **3 Credit Hours**

Total Semester Hours: 16

Spring Semester

RTE 1513C - Radiographic Procedures II **4 Credit Hours**

RTE 1457C - Radiographic Techniques II **4 Credit Hours**

RTE 1814L - Radiography Clinical Education II **3 Credit Hours**

DEP 2004 - Human Growth and Development **3 Credit Hours**

RTE 2571 - Introduction to Computed Tomography **1 Credit Hour**

Total Semester Hours: 15

Summer Semester

Humanities General Education Course **3 Credit Hours**

RTE 1824L - Radiography Clinical Education III **4 Credit Hours**

RTE 2523C - Radiographic Procedures III **3 Credit Hours**

Total Semester Hours: 10

Second Year**Fall Semester**

RTE 2385 - Radiographic Protection and Biology **3 Credit Hours**

RTE 2473 - Radiographic Quality Assurance **2 Credit Hours**

RTE 2533C - Radiographic Procedures IV **2 Credit Hours**

RTE 2844L - Radiography Clinical Education IV **5 Credit Hours**

Total Semester Hours: 12

Spring Semester

RTE 2061 - Radiographic Preparation for Practice **4 Credit Hours**

RTE 2782 - Radiographic Pathology **3 Credit Hours**

RTE 2854L - Radiography Clinical Education V **5 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 77

Rapid Prototyping Specialist (CCC)

Admission Program of Study Code RAPP

State CIP Code 0615000012

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) or the Engineering Technology - Digital Design & Modeling Specialization Option (AS) Option (Both State CIP Code 1615000001).

Core Courses**ETD 2364C - SolidWorks I**

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2368C - SolidWorks II

3 Credit Hours
(Spring)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using SolidWorks Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2364C or higher or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

Total Technical Elective Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Rapid Prototyping Specialist (CCC) (RAPP)
Fall Semester
ETD 2364C - SolidWorks I 3 Credit Hours
ETD 2371C - 3D Printing I 3 Credit Hours
Total Semester Hours: 6
Spring Semester
ETD 2368C - SolidWorks II 3 Credit Hours
ETD 2372C - 3D Printing II 3 Credit Hours
Total Semester Hours: 6
Total Program Hours: 12

Rooms Division Management (CCC)

Admission Program of Study Code RMMG
State CIP Code 0252090402

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

3 Credit Hours
(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the

hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

Total Program Credits Required: 30

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Rooms Division Management (CCC) (RMMG)	Companion Certificate*
First Year	
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours Total Semester Hours: 15	
Spring Semester FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours HFT 1250 - Hotel and Resort Operations 3 Credit Hours HFT 2210 - Hospitality Management 3 Credit Hours Total Semester Hours: 9	
Summer Semester HFT 1410 - Front Office Management 3 Credit Hours HFT 2942 - Hospitality Internship 3 Credit Hours Total Semester Hours: 6	√

Total Program Credits: 30	
* Courses with √ can also be used in the Companion Certificate indicated: Rooms Division Operations (CCC)	

Rooms Division Operations (CCC)

Admission Program of Study Code RMOP
State CIP Code 0252090406

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2940 - Hospitality Internship

1 Credit Hour
(Offered Fall, Spring, Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 19

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Rooms Division Operations (CCC) (RMOP)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours

HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours Total Semester Hours: 12
Spring Semester HFT 1250 - Hotel and Resort Operations 3 Credit Hours HFT 2940 - Hospitality Internship 1 Credit Hour Total Semester Hours: 4
Summer Semester HFT 1410 - Front Office Management 3 Credit Hours Total Semester Hours: 3
Total Program Hours: 19

Rooms Division Specialist (CCC)

Admission Program of Study Code ROOM
State CIP Code 0252090405

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

**3 Credit Hours
(Spring)**

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

**3 Credit Hours
(Fall)**

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

**3 Credit Hours
(Summer)**

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 2940 - Hospitality Internship

**1 Credit Hour
(Offered Fall, Spring, Summer)**

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 13

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Rooms Division Specialist (CCC) (ROOM)
First Year
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours

HFT 1300 - Managing Housekeeping **3 Credit Hours**

Total Semester Hours: 6

Spring Semester

HFT 1250 - Hotel and Resort Operations **3 Credit Hours**

Total Semester Hours: 3

Summer Semester

HFT 1410 - Front Office Management **3 Credit Hours**

HFT 2940 - Hospitality Internship **1 Credit Hour**

Total Semester Hours: 4

Total Program Hours: 13

Sports, Fitness and Recreation Management (AS)

Admission Program Objective Code SPFR

State CIP Code 1731050701

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours

(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

LEI 1544 - Outdoor Recreation Management

3 Credit Hours
(Fall, Spring)

This course examines the fundamental influences on outdoor recreation. The course also provides information on hazards, conservation considerations, and safety factors in planning and organizing outdoor recreations. Basic first aid, CPR, and AED training is incorporated as it pertains to outdoor recreation. Field trips may be assigned as warranted.

PEM 1131A - Strength Training

3 Credit Hours
(Offered as needed)

This course is a high intensity lecture/demonstration and flexible lab hour weight training program designed to increase the size, strength, and endurance of the skeletal muscle system. Instruction includes, but is not limited to, weight training safety, etiquette, history, and nutrition. Instruction will be given in the design of progressive resistance programs to increase total body efficiency and to meet the objectives of the individual student. Students are responsible for determining fitness for training, and those with medical problems which restrict personal activities are encouraged to obtain medical clearance before enrolling in the course.

PET 1000 - Introduction to Physical Education

3 Credit Hours
(Offered as needed)

A study of the history of physical education and sport with particular emphasis placed on present practices and trends.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

Total Core Credits Required: 21

Technical Elective Courses

Select 21 credits from the following:

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CLP 1001 - Personal Adjustment

3 Credit Hours
(Fall, Spring, Summer)

Psychology of adjustment, application of psychological theory for problem solving and better mental health. An examination of psychological defense mechanisms and adaptive behavior.

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIN 1670 - Writing and Grammar

3 Credit Hours
(Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and

mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

MAN 2021 - Management

3 Credit Hours (Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAT 1033A - Intermediate Algebra

4 Credit Hours (Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MNA 2100 - Organizational Behavior

3 Credit Hours (Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PEM 2108 - Fitness Lab

1 Credit Hour (Offered as needed)

Instruction and participation in an exercise program with emphasis on muscle endurance, strength and flexibility.

Prerequisite(s): HLP 1081 or approved wellness assessment by the department chair.

This course may be taken up to four times for credit.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Selected Activity Courses (PEL, PEM, PEO) **4 Credit Hours**
- _____ - Other Approved College Credits

Total Technical Elective Credits Required: 21

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Sports, Fitness and Recreation Management (AS) (SPFR)
First Year
Fall Semester HSC 1400 - First Aid 3 Credit Hours PET 1000 - Introduction to Physical Education 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ General Education Humanities Course 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Spring Semester HUN 2201 - Nutrition 3 Credit Hours General Education Mathematics Course 3 Credit Hours General Education Social Science Course 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester HSC 1100 - Health Education 3 Credit Hours PEM 1131A - Strength Training 3 Credit Hours General Education Science Course 3 Credit Hours

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HLP 1081 - Wellness: Practice and Theory **3 Credit Hours**

PET 2622 - Care and Prevention of Athletic Injuries **3 Credit Hours**

LEI 1544 - Outdoor Recreation Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Stage Technology (Theater & Entertainment) (CCC)

Admission Program of Study Code STGT
State CIP Code 0650050201

Students who successfully complete this certificate may be eligible to receive credits towards one of the following Theatre and Entertainment A.S. degree options:

- Theater and Entertainment Technology - Acting Specialization Option (AS) (State CIP Code 1650050202)
- Theater and Entertainment Technology - Costuming Specialization Option (AS) (State CIP Code 0650050202)
- Theater and Entertainment Technology - Technical Theater Specialization Option (AS) (State CIP Code 0650050202)

Core Courses

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

Total Core Credits Required: 17

Total Program Credits Required: 17

Theater and Entertainment Technology - Acting Specialization Option (AS)

Admission Program Objective Code THTA

State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Stage Technology (Theater & Entertainment) (CCC) (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Natural Sciences **3 Credit Hours**
- ____ Social Sciences **3 Credit Hours**
- ____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours

(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶

(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2141 - Acting in Shakespeare

3 Credit Hours
(Offered as needed)

This course is an introduction to the concepts, principles, and skills needed to develop characters in Shakespeare's plays. The course focuses on the hidden clues in the text to discover character choices and meaning. Specific analysis and the techniques of scansion are introduced as they relate to character interpretation. Application of these techniques will be presented in scenes and monologues.

TPP 2120 - Improvisation

3 Credit Hours
Offered as needed

This course explores the use of creativity and imagination, engaging the actor in a wide variety of improvisational theatre games.

TPP 2150 - Advanced Scene Study

**3 Credit Hours
(Fall)**

This course is a continuation of the processes and concepts of TPP 2111, Acting II, with the addition of new techniques to create dynamic and engaging characterizations through performance.

TPP 2220 - Auditioning

**3 Credit Hours
(Offered as Needed)**

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2533 - Stage Combat I (Unarmed & Rapier)

**3 Credit Hours
(Spring)**

Through in-class study and performance the student will develop an understanding of and proficiency in the safe techniques of unarmed and rapier stage combat which are required of a theatrical performer. Application of these techniques will be presented in two scenes, one for unarmed and one for rapier.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two-Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Acting Specialization Option (AS) (THTA)	Companion Certificate*
First Year	
Fall Semester	
Communications General Education Course 3 Credit Hours	√
THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶	√
THE 2304 - Script Analysis 3 Credit Hours	√
TPP 2110 - Acting I 3 Credit Hours	
SPC 1608 - Public Speaking 3 Credit Hours † or SPC 2300 - Interpersonal Communication 3 Credit Hours †	
Total Semester Hours: 15	

Spring Semester TPA 2232 - Introduction to Costuming Technology 3 Credit Hours TPP 2111 - Acting II 3 Credit Hours TPP 2220 - Auditioning 3 Credit Hours Humanities General Education Course 3 Credit Hours Mathematics General Education Course 3 Credit Hours Total Semester Hours: 15	 √ √ √
Second Year	
Fall Semester Natural Science General Education Course 3 Credit Hours TPP 2120 - Improvisation 3 Credit Hours TPP 2150 - Advanced Scene Study 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours TPP 1190 - Rehearsal and Performance I 3 Credit Hours Total Semester Hours: 15	 √
Spring Semester TPP 2533 - Stage Combat I (Unarmed & Rapier) 3 Credit Hours TPP 1191 - Rehearsal and Performance II 3 Credit Hours TPP 2141 - Acting in Shakespeare 3 Credit Hours TPP 1940 - Internship in Theatre Performance 3 Credit Hours Social Science General Education Course 3 Credit Hours Total Semester Hours: 15	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC)	

Theater and Entertainment Technology - Costuming Specialization Option (AS)

Admission Program Objective Code THTC
State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the Stage Technology (Theater & Entertainment) (CCC) certificate (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours

(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

HUM 1905A - Independent Study – Arts and Humanities

1 Credit Hour

(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): approval from department chair, a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

THE 2304 - Script Analysis

3 Credit Hours

(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour

(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2331 - Costume Construction

3 Credit Hours
(Offered as needed)

An introduction to costume construction techniques and wardrobe design. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences

in costume construction.

Prerequisite(s): TPA 2232

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1192 - Rehearsal and Performance III

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1191.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2930 - Theater Performance – Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Costuming Specialization Option (AS) (THTC)	Companion Certificate*
First Year	STGT
Summer Semester TPA 1290 - Technical Theatre Lab I 1 Credit Hour HUM 1905A - Independent Study – Arts and Humanities 1 Credit Hour Total Semester Hours: 2	√ √
Fall Semester Communications General Education Course 3 Credit Hours Speech General Education Course 3 Credit Hours TPP 2110 - Acting I 3 Credit Hours TPA 2232 - Introduction to Costuming Technology 3 Credit Hours Total Semester Hours: 12	
Spring Semester Social Science General Education Course 3 Credit Hours TPA 2220 - Lighting Design 3 Credit Hours TPP 1190 - Rehearsal and Performance I 3 Credit Hours TPA 2331 - Costume Construction 3 Credit Hours Total Semester Hours: 12	√ √ √
Summer Semester Natural Science General Education Course 3 Credit Hours TPP 1191 - Rehearsal and Performance II 3 Credit Hours	√

Total Semester Hours: 3	
Second Year	
Fall Semester Mathematics General Education Course 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶ THE 2304 - Script Analysis 3 Credit Hours Total Semester Hours: 12	√
Spring Semester TPA 1291 - Technical Theatre Lab II 1 Credit Hour TPP 1192 - Rehearsal and Performance III 3 Credit Hours THE 2300 - Dramatic Literature 3 Credit Hours † ¶ TPA 2063 - Principles of Scenic Design 3 Credit Hours TPP 2930 - Theater Performance – Special Topics 3 Credit Hours TPA 1940 - Internship in Theatre Design or Production 3 Credit Hours Total Semester Hours: 16	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC) (STGT)	

Theater and Entertainment Technology - Dance Specialization Option (AS)

Admission Program Objective Code THTD
State CIP Code 1650050202

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**

- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction

techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

Select 33 credits from the following:

DAA 1104 - Modern I for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to affect an understanding of the art of the modern dance. It includes a brief history of the dance; instruction and practice in basic dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time. This course maybe taken 4 times for credit.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1204 - Ballet I for Majors

2 Credit Hours
(Fall, Spring, Summer)

A beginning dance course designed to serve as an introduction to the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring

popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical theater auditions.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1681 - Dance Ensemble

1 Credit Hour
(Fall, Spring)

The student shall participate in the preparation and performance of original dance compositions to include Dance Line and Show Choir performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.
(to be completed three times for audit)

DAA 2105 - Modern II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to further the student's understanding of the art of the modern dance. It includes continued study in history of the dance; instruction and practice in intermediate level dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2205 - Ballet II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance course is designed to serve as an further training in the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2610 - Dance Composition

2 Credit Hours
(Fall, Spring)

An introduction and practice in the application of compositional tools encourages the student to explore and compose dance. By studying the body's movement in time and space the student will improve technical skills, develop improvisation and choreographic skills and enhance overall dance performance. Previous dance experience is helpful.

This course may be taken up to four times for credit.

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography)

1 Credit Hour
(Fall, Spring)

This course includes the continuation of study and participation in all rehearsals of selected works of dance repertory and/or original choreography culminating in public performance.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAN 1750 - Dance Conditioning

1 Credit Hour
(Fall, Spring)

Dance Conditioning is an excellent course in which to begin your dance training. It is designed to improve fundamentals for the beginning/intermediate student through daily practice in floor work, yoga, and Pilates exercises. This movement class will get you ready to meet the challenges of other dance classes by toning, strengthening and preparing the body to move.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAN 2120 - Dance Appreciation

3 Credit Hours
(Offered as needed)

This course is a study of the development of dance as an art form, as entertainment, and how it relates to the history of cultures and societies, emphasizing the evolution of dance in the specific genres such as ballet, modern dance, jazz dance, and world dance forms. Designed to heighten student awareness of dance as an integral part of society and establish an appreciation of dance's impact on the making of art. This course will give the student a foundation level understanding of dance as an art form and its historical and cultural significance. The major periods of dance history, master choreographers, and their works will be explored through lecture, discussion and media presentation. DAN 2120 is not an activity course.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Dance Specialization Option (AS) (THTD)
First Year
Summer Semester Communications General Education Course 3 Credit Hours DAA 1200 - Fundamentals of Ballet 2 Credit Hours Total Semester Hours: 5
Fall Semester Mathematics General Education Course 3 Credit Hours DAA 1104 - Modern I for Majors 2 Credit Hours DAA 1204 - Ballet I for Majors 2 Credit Hours DAA 1504 - Jazz I for Majors 2 Credit Hours DAA 1681 - Dance Ensemble - Audit DAN 1750 - Dance Conditioning 1 Credit Hour DAN 2120 - Dance Appreciation 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours Total Semester Hours: 16
Spring Semester Natural Science General Education Course 3 Credit Hours DAA 1104 - Modern I for Majors 2 Credit Hours DAA 1204 - Ballet I for Majors 2 Credit Hours DAA 1504 - Jazz I for Majors 2 Credit Hours DAA 1520 - Tap I 1 Credit Hour DAA 1681 - Dance Ensemble - Audit DAA 2683 - Performance Dance, (Repertory and/or Original Choreography) 1 Credit Hour

THE 2000 - Theatre Appreciation **3 Credit Hours** † ♦ ¶

Total Semester Hours: 14

Second Year

Fall Semester

Humanities General Education Course **3 Credit Hours**

Speech Additional General Education Course **3 Credit Hours**

DAA 1681 - Dance Ensemble - **Audit**

DAA 2105 - Modern II for Majors **2 Credit Hours**

DAA 2205 - Ballet II for Majors **2 Credit Hours**

DAA 2610 - Dance Composition **2 Credit Hours**

DAN 1750 - Dance Conditioning **1 Credit Hour**

Total Semester Hours: 13

Spring Semester

Social Science General Education Course **3 Credit Hours**

DAA 2105 - Modern II for Majors **2 Credit Hours**

DAA 2205 - Ballet II for Majors **2 Credit Hours**

DAA 1520 - Tap I **1 Credit Hour**

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography) **1 Credit Hour**

TPA 2232 - Introduction to Costuming Technology **3 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 60

Theater and Entertainment Technology - Music Theater Specialization Option (AS)

Admission Program Objective Code THTM

State CIP Code 1650050202

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1500 - Jazz I for Non-Majors

1 Credit Hour
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken four times for credit.
(to be completed twice for program credit)

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical

theater auditions.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1680 - Dance Workshop

1 Credit Hour
(Fall, Spring)

This course includes instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

This course may be taken up to four times for credit.
(to be completed four times for **audit**)

- MUN ____ - Music Ensembles (to be completed four times for **audit**)

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MVV 1211 - Applied Music – Voice I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice.

This course may be taken up to four times for credit.

MVV 1311 - Applied Music - Voice I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in voice in the freshman year of study as the student's principal performing medium. This one hour weekly lesson is for intended voice majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which four memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVV 2221 - Applied Music – Voice II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice.

Prerequisite(s): MVV 1211.

This course may be taken up to four times for credit.

MVV 2322 - Applied Music - Voice II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in voice in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended voice majors, and requires Division Chair Approval. A major component of this class is a required juried performance at the end of the semester for which six memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211, MVV 1311 and Division Chair approval.

This course may be taken up to four times for credit.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2220 - Auditioning

3 Credit Hours
(Offered as Needed)

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2250 - Introduction to Musical Theatre

3 Credit Hours
(Fall)

Introduction to the study of Musical Theater analysis, creation, and performance with an emphasis on singing, dancing, and acting.

Total Technical Elective Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Music Theater Specialization Option (AS) (THTM)	
Summer Semester	
Speech General Education Course 3 Credit Hours	
DAA 1200 - Fundamentals of Ballet 2 Credit Hours	

Total Semester Hours: 5

First Year

Fall Semester

Communications General Education Course **3 Credit Hours**

MUT 1111 - Music Theory I **3 Credit Hours**

MUT 1241 - Ear Training and Sight Singing I **1 Credit Hour**

DAA 1500 - Jazz I for Non-Majors **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 1211 - Applied Music – Voice I **1 Credit Hour**

TPP 2110 - Acting I **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

Mathematics General Education Course **3 Credit Hours**

DAA 1500 - Jazz I for Non-Majors **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 2221 - Applied Music – Voice II **1 Credit Hour**

THE 2000 - Theatre Appreciation **3 Credit Hours † ♦ ¶**

TPP 2111 - Acting II **3 Credit Hours**

TPP 2220 - Auditioning **3 Credit Hours**

Total Semester Hours: 14

Second Year

Fall Semester

Natural Science General Education Course **3 Credit Hours**

MUL 1010 - Music Appreciation **3 Credit Hours † ♦ ¶**

DAA 1520 - Tap I **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 1311 - Applied Music - Voice I for Majors **2 Credit Hours**

TPA 1210 - Stagecraft **3 Credit Hours**

TPP 2250 - Introduction to Musical Theatre **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

Social Science General Education Course **3 Credit Hours**

DAA 1504 - Jazz I for Majors **2 Credit Hours**

DAA 1520 - Tap I **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 2322 - Applied Music - Voice II for Majors **2 Credit Hours**

TPA 2232 - Introduction to Costuming Technology **3 Credit Hours**

TPP 1940 - Internship in Theatre Performance **3 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 60

Theater and Entertainment Technology - Technical Theater Specialization Option (AS)

Admission Program Objective Code THTT

State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the Stage Technology (Theater & Entertainment) (CCC) certificate (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**

- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFS's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 2276C - Entertainment Technology - Crafts

3 Credit Hours
(Spring)

This course presents the practices and principles of advanced woodworking, welding, smithing, casting, ceramics, plaster work, fiberglass and plastic technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented that will use items created in a realized production.

Prerequisite(s): TPA 1210.

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2292 - Technical Theatre Lab III

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the

opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1291

TPA 2301 - Technical Theatre Lab IV

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 2292

TPA 2343 - CAD for the Theatre

3 Credit Hours
(Offered as Needed)

This course is project oriented covering fundamental through advanced material in computer aided drafting and design and its application for the theatre.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

Total Technical Elective Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Technical Theater Specialization Option (AS) (THTT)	Companion Certificate*
First Year	STGT
Summer Semester Social Science General Education Course 3 Credit Hours	

TPA 1290 - Technical Theatre Lab I 1 Credit Hour Total Semester Hours: 4 Fall Semester Communications General Education Course 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours TPA 2212 - Sound Production for the Stage 3 Credit Hours TPA 2343 - CAD for the Theatre 3 Credit Hours THE 2304 - Script Analysis 3 Credit Hours Total Semester Hours: 15	 √ √
Spring Semester TPA 1291 - Technical Theatre Lab II 1 Credit Hour TPA 2063 - Principles of Scenic Design 3 Credit Hours TPA 2220 - Lighting Design 3 Credit Hours TPA 2232 - Introduction to Costuming Technology 3 Credit Hours TPA 2276C - Entertainment Technology - Crafts 3 Credit Hours Total Semester Hours: 13	 √ √ √
Second Year	
Fall Semester Natural Science General Education Course 3 Credit Hours Humanities General Education Course 3 Credit Hours Speech Additional General Education Course 3 Credit Hours TPA 2292 - Technical Theatre Lab III 2 Credit Hours TPP 2110 - Acting I 3 Credit Hours Total Semester Hours: 14	 √
Spring Semester	

General Education Mathematics Course 3 Credit Hours	√
THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶	
TPA 1940 - Internship in Theatre Design or Production 3 Credit Hours	
TPA 2301 - Technical Theatre Lab IV 2 Credit Hours	
TPA 2600 - Stage Management 3 Credit Hours	
Total Semester Hours: 14	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC)	

Unmanned Vehicle Systems Operations - Payload Specialist Specialization (AS)

Admission Program of Study Code DRO3

State CIP Code 1615080102

General Education

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

Total General Education Credits Required: 18

Core Courses

ASC 2560C - Unmanned Aerial Vehicles & Systems

5 Credit Hours
(Spring)

This course is a survey of unmanned aerial vehicles (UAV) and systems, emphasizing the military and commercial history, growth and applications of UAVs. Course will include basic acquisition, use and operation of UAVs with an emphasis on operations.

Prerequisite(s): ATT 1100

ASC 2564C - Unmanned Vehicle Security

4 Credit Hours
(Spring)

Participants will develop an understanding of the digital operations of an unmanned vehicle. Methods of securing digital information during the upload and downloading functions will be explored.

ASC 2949C - Unmanned Systems Practicum

4 Credit Hours
(Spring)

Practical application in a clinical setting of knowledge acquired in the classroom.

ATT 1100 - Private Pilot Ground School

3 Credit Hours
(Fall)

An introductory survey of the subjects pertaining to flight; aircraft operation and performance, weather, pilotage, air traffic control and Federal Aviation Regulations in preparation for the Federal Aviation Administration Private Pilot Written examination.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be

exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 29

Specialization Elective Courses

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours (Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

Total Specialization Elective Credits Required: 15

Total Program Credits Required: 62

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Unmanned Vehicle Systems Operations (AS)

First Year

Fall Semester

ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶

ATT 1100 - Private Pilot Ground School **3 Credit Hours**

PHI 2600 - Introduction to Ethics **3 Credit Hours** ♦ † ¶

ETI 1710 - Occupational Safety **3 Credit Hours**

SLS 2505 - Critical Thinking **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MAC 1105 - College Algebra **3 Credit Hours** ♦

ENC 2210 - Technical Report Writing **3 Credit Hours**

ETM 1005C - Basic Mechanical Operations **3 Credit Hours**

ASC 2560C - Unmanned Aerial Vehicles & Systems **5 Credit Hours**

Specialization Technical Elective **3 Credit Hours**

Total Semester Hours: 17

Second Year
Fall Semester POS 1041 - American Government 3 Credit Hours ♦ ¶ Ω PHY 1020 - Physical Science 3 Credit Hours ♦ Specialization Technical Elective 3 Credit Hours Specialization Technical Elective 3 Credit Hours PGY 1801C - Digital Photography I 4 Credit Hours Total Semester Hours: 16
Spring Semester ASC 2564C - Unmanned Vehicle Security 4 Credit Hours ASC 2949C - Unmanned Systems Practicum 4 Credit Hours Specialization Technical Elective 3 Credit Hours Specialization Technical Elective 3 Credit Hours Total Semester Hours: 14
Total Program Hours: 62

Welding Technology (CCP)

Admission Program of Study Code WELT
State CIP Code 0648050805

This program offers a broad foundation of knowledge and skills to prepare students for employment in the welding industry.

Basic Skills Requirements: The student must be exempt or attain a **9th grade level** on each section of the TABE exam: Math, Language and Reading.

Core Courses

PMT 0106C - Welder Helper

150 Clock Hours
(Fall, Spring)

This course provides instruction in shop safety, the use of safety procedures and protective equipment needed in a welding shop. Course includes basic shop math, shop safety, welding equipment setup/teardown procedures.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0111C - Metal Preparation

150 Clock Hours
(Fall, Summer)

This course provides instruction in different metal preparation processes including: thermal preparation (oxygen/fuel cutting, carbon arc cutting, plasma torch cutting). The student will also learn mechanical preparation (band saw, grinder, power brush, and other metal prep equipment).

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PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides instruction and demonstration using Shielded Metal Arc Welding (SMAW). Topics include visually inspect of welds, and basic SMAW technical terminology. Basic structural welding techniques will be demonstrated in accordance with American Welding Society (AWS) D1.1 Structural Welding Code. Tack welding and metal joint fit of carbon steel is covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0122C - Basic Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course introduces structural fillet welds in different joint positions in accordance with AWS D1.1 Structural Welding Code. Fillet welds will be performed on carbon steel plate of various thicknesses.

Prerequisite(s): PMT 0121C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides the student with instruction on joint design, joint preparation, and fit-up, and performance of groove welds with backing. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds with backing and make acceptable groove welds with backing using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0122C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Spring, Summer)

This course provides the student with advanced instruction on joint design, joint preparation, and fit-up, and performance of open groove welds. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of open groove welds and make acceptable open groove welds in all positions using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0126C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0134C - Gas Metal Arc Welding (GMAW)

50 Clock Hours
(Spring, Summer)

This course provides instruction and demonstration using the various transfer methods and techniques of Gas Metal Arc Welding (GMAW). Topics included are safety, equipment set-up, joint design and preparation, and gases.

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PMT 0145C - Flux-Core Arc Welding (FCAW)

240 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Flux-Core Arc Welding (FCAW) and basic understanding of pipe welding. Welding symbols and blueprint reading are covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0155C - Gas Tungsten Arc Welding (GTAW)

160 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to gas tungsten arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Gas Tungsten Arc Welding (GTAW), and basic understanding of pipe welding.

Total Program Hours Required: 1050

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Welding Technology (CCP) (WELT) - Day Schedule
Fall Semester
PMT 0106C - Welder Helper 150 Clock Hours
PMT 0111C - Metal Preparation 150 Clock Hours
PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0122C - Basic Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW) 75 Clock Hours
Total Semester Clock Hours: 525
Spring Semester
PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW) 75 Clock Hours

PMT 0134C - Gas Metal Arc Welding (GMAW) 50 Clock Hours
PMT 0145C - Flux-Core Arc Welding (FCAW) 240 Clock Hours
PMT 0155C - Gas Tungsten Arc Welding (GTAW) 160 Clock Hours
Total Semester Clock Hours: 525

Total Program Clock Hours: 1050

Welding Technology (CCP) (WELT) - Night Schedule

Spring Semester

PMT 0106C - Welder Helper 150 Clock Hours
PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0122C - Basic Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW) 75 Clock Hours
Total Semester Clock Hours: 375

Summer Semester

PMT 0111C - Metal Preparation 150 Clock Hours
PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0134C - Gas Metal Arc Welding (GMAW) 50 Clock Hours
Total Semester Clock Hours: 275

Fall Semester

PMT 0145C - Flux-Core Arc Welding (FCAW) 240 Clock Hours
Total Semester Clock Hours: 400

Total Program Clock Hours: 1050

Welding Technology - Advanced (CCP)

Admission Program of Study Code WELA
State CIP Code 0648050806

This program offers a broad foundation of knowledge and skills to prepare students for employment in the welding industry.

Core Courses

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding

200 Clock Hours
(Offered as needed)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the Shielded Metal Arc Weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to demonstrate pipe positions, proper electrodes selection, proper joint geometry, joint preparation, fit-up, and proper SMAW pipe welding techniques in accordance with applicable codes.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0171C - SMAW-GTAW Pipe Welding

400 Clock Hours
(Offered as needed)

This course is designed to provide the students with skills in welding carbon steel pipe using Shielded Metal Arc Weld process and Gas Tungsten Arc Weld (GTAW) processes using proper filler metals in the 2G, 5G, and 6G positions. Upon completion, students should be able to perform shielded metal arc welding process and gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in the 2G, 5G, and 6G position in accordance with the applicable code.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0173C - Specialty Pipe Welding

150 Clock Hours
(Offered as needed)

This courses covers advanced pipe welding and is designed to build advanced GTAW skills. This course covers advanced Gas Tungsten Arc Welding (GTAW) on alloy pipe and heavy wall carbon pipe.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 750

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Welding Technology - Advanced (CCP) (WELA) - Day Schedule
Summer Semester PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding 200 Clock Hours Total Semester Clock Hours: 200
Fall Semester PMT 0171C - SMAW-GTAW Pipe Welding 400 Clock Hours PMT 0173C - Specialty Pipe Welding 150 Clock Hours Total Semester Clock Hours: 550
Total Program Clock Hours: 750

Welding Technology - Advanced (CCP) (WELA) - Night Schedule
Spring Semester PMT 0171C - SMAW-GTAW Pipe Welding 400 Clock Hours Total Semester Clock Hours: 400
Summer Semester PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding 200 Clock Hours PMT 0173C - Specialty Pipe Welding 150 Clock Hours Total Semester Clock Hours: 350
Total Program Clock Hours: 750

General Education

AA Degree General Education Requirements	• Diversity Focus for Teacher Education Programs
AAS Degree General Education Requirements	• Gordon Rule Courses
AS Degree General Education Requirements	• Oral Communication Speaking-Across-the-Curriculum
	• Technology-Across-the-Curriculum
	• Writing-Across-the-Curriculum
	• Civic Literacy Competency

General Education

General Education for All Degrees

All NWF State College degree programs contain both specialized courses and general education courses. Bachelor of Applied Science, Bachelor of Science and Associate in Arts students complete at least thirty-six (36) general education credits from five subject area categories. Associate in Science students complete at least eighteen (18) general education credits from five (5) subject areas. The general education component of each program is designed to further the mission and goals of the college. Upon successful completion of general education coursework, the student will:

1. Demonstrate proficiency in reading, writing and speaking;
2. Apply reflection, analysis, synthesis, logical reasoning and evaluation to formulate judgments, reach decisions and solve problems;
3. Understand and apply mathematical and scientific principles and methods;
4. Find, evaluate, organize and use information accurately and effectively;
5. Participate actively as informed and responsible citizens in social, cultural, global and environmental matters.

The NWF State College General Education Program is designed to conform to all applicable regional accreditation criteria, Florida State Board of Education Rules, and the Florida Statewide Articulation Agreement. To that end, the program incorporates a Technology-Across-the-Curriculum component, a Speaking-Across-the-Curriculum requirement, and minimum grade and writing requirements as stipulated in Florida's "Gordon Rule."

Technology-Across-the-Curriculum

Competence in basic technology skills is an essential component of life. Accordingly, NWF State College has incorporated technology throughout its programs and courses. Each two-year degree program contains at least one course that requires the student to demonstrate fundamental technology skills. All ENC 1101 - English Composition I classes are taught in a computer classroom, and students are required to complete assignments and other activities on a computer. CGS 1100 - Microcomputer Applications is a requirement or prerequisite course in many A.S. degrees. In support of the technology requirement, NWF State College offers student access to and technical support in open computer labs at all college sites.

B.A.S., B.S., A.A., A.A.S., and A.S. degree-seeking students will meet the computer technology skill requirement through completion of ENC 1101 and/or CGS 1100 and may encounter more advanced computer skills in other elective, technical or general education courses. See the course descriptions section of this catalog for the courses designated as part of the Technology-Across-the-Curriculum program.

Writing-Across-the-Curriculum

All associate degree students must complete at least one three-credit writing class as part of their general education program. Additional writing activities are required in all general education humanities courses. Bachelor of Applied Science, Bachelor of Science and Associate in Arts students must complete twelve (12) to fifteen (15) college credits from designated general education Gordon Rule Communication, Humanities and Social Science subject areas. See the A.A. General Education section of catalog for specific courses.

Speaking-Across-the-Curriculum (SATC)

Oral communication is an integral part of the NWF State College general education program; thus several general education courses include graded activities designed to build speaking and communication skills. All B.A.S., B.S., A.A., and A.S. degree-seekers must satisfy the Speaking-Across-the-Curriculum requirement and may do so by completing at least one of the general education courses designated as part of the Speaking-Across-the-Curriculum component of the General Education program. Students who successfully complete other speech, forensics, or oral interpretation courses may request that such courses be used to satisfy this requirement. See the A.A. General Education section of catalog for specific courses.

Gordon Rule Courses

Florida's Gordon Rule (FAC Rule 6A-10.030) includes a legislative mandate that all baccalaureate and Associate in Arts graduates successfully complete specific math and writing requirements. B.A.S., B.S. and A.A. graduates must have successfully completed at least 21 college credits from designated general education Gordon Rule Communication, Humanities, Social Science and Mathematics subject areas. A.S. graduates must have successfully completed at least 9-12 college credits from designated general education Gordon Rule Communication, Humanities, Social Science and Mathematics subject areas (SATC Humanities may be replaced with General Humanities in the AS degree as long as Speaking-Across-the-Curriculum is met elsewhere. General Social Science may replace Gordon Rule Social Science, thus lowering the Gordon Rule requirement for the AS degree from 12 to 9 college credits).

All B.A.S., B.S., A.A., A.A.S, and A.S. degree-seekers must also earn a grade of "C" or higher in each Gordon Rule course used to satisfy general education requirements, whether the credits are earned at NWFSC or elsewhere.

Diversity Focus for Teacher Education Programs

Students who plan to enter any of the Teacher Education programs leading to certification must complete 6 credit hours of coursework with an international or diversity focus. Any course identified as meeting NWF State College's Diversity Requirement will fulfill this requirement, including foreign language courses.

Civic Literacy Competency

On May 16, 2018, the State Board of Education approved Rule 6A-10.02413, Florida Administrative Code (F.A.C.), Civic Literacy Competency, as required by section 1007.25(4), Florida Statutes (F.S.). The rule became effective on June 19, 2018. All first-time-in college associate in arts degree seeking students beginning in the 2018-19 academic year must demonstrate civic literacy competency prior to graduation either through successful completion of a course or by achieving a passing score on an assessment.

AA Degree General Education Requirements

Associate in Arts students must complete 60 college credits to complete the degree; 36 of these credits must be general education credits distributed across five subject area categories. A student must satisfy the required number of credits in each category. The remaining 24 elective credits should be selected in consultation with an advisor, who will assist with selecting the college credits most advantageous to the student's educational goals.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social Sciences. Beginning with students initially entering a Florida College System institution or state university in 2015-2016 and thereafter, each student must complete at least one identified core course (designated with ♦) in each area of study as part of the general education course requirements. Furthermore, NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA and AS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

AA General Education Requirements

Communications: 6

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

A minimum grade of "C" in each Communications course is required for general education credit.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ◆ **Core General Education**
- ▲ **Technology-Across-the Curriculum**
- ¶ **Writing requirements**

Humanities: 6

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

A minimum grade of "C" in each Humanities course is required for general education credit.

- Choose one Core Humanities course and one General Humanities course, or
- Choose two Core Humanities courses.

Core Humanities

ARH 1000 - Art Appreciation

3 Credit Hours ◆ † ◆ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ◆ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

◆ **Core General Education**
† **Speaking-Across-the Curriculum**

- ❖ International and/or diversity focus
- ¶ Writing requirements

General Humanities

AML 2010 - American Literature: 1492 - 1865

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from the pre-Colonial period to the Civil War. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AML 2020 - American Literature: 1865 - Present

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from Civil War to present. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: AML 2010 is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ❖ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2060 - Architecture History

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2250 - Humanities – A Contemporary Perspective

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2700 - Humanities – Foreign Study

3 Credit Hours ♦ ¶
(Offered as needed)

A variable humanities content course designed to allow students first-hand learning experiences outside the United States. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2100 - World Literature: Antiquity through the Renaissance

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from antiquity through the Renaissance, that reflect cultural and intellectual heritage. May be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet the Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2120 - World Literature: Renaissance through the Present

3 Credit Hours ♦ ¶

(Offered, Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from the Renaissance to the present, that reflect cultural and intellectual heritage. May be used as a humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: LIT 2100 is not a prerequisite for this course)

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶

(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

REL 2300 - Introduction to World Religions

3 Credit Hours ❖ ¶
(Fall, Spring, Summer)

This course will explore the principles and practices of the world's major religious traditions. The religions will be studied in their historical and contemporary forms. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2071 - Humanities – Cinema Appreciation

3 Credit Hours † ¶
(Fall, Spring, Summer)

An introduction to the origin, development, cultural aspects and analysis of cinema topics. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2300 - Dramatic Literature

3 Credit Hours † ¶
(Fall, Spring)

Survey of dramatic works from the Greeks to the 20th century, with emphasis on the plays of the 19th and 20th centuries; intensive investigation and script analysis with reports, lectures and discussions. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

† **Speaking-Across-the Curriculum**
❖ **International and/or diversity focus**
¶ **Writing requirements**

Mathematics: 6

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

All Mathematics courses listed below meet Mathematics requirements outlined in FAC Rule 6A-10.030.

A minimum grade of "C" in each Mathematics course is required for general education credit.

- Choose one Core Mathematics course and one General Mathematics course, or
- Choose two Core Mathematics courses.

(Any student who successfully completes a Mathematics course for which one of the general education core course options in Mathematics is an immediate prerequisite shall be considered to have completed the Mathematics core.)

Core Mathematics

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear,

quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting

techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):

Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 123 or higher on the math section of the PERT OR
- (2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
- (3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ **Core General Education**

General Mathematics

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and

determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAS 2103 - Linear Algebra

3 Credit Hours
(Offered as needed)

This is an introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. This course includes the study of matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors. Exercises using MATLAB will be required. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better, or equivalent.

MTG 2206 - College Geometry

3 Credit Hours
(Spring)

This course emphasizes Euclidean geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve the following: line segments, angles, triangles, polygons, parallel and perpendicular lines, slopes of lines, circles, and similarity. Trigonometry is presented in terms of right triangle relationships. Logic is the basis for deductive reasoning in proofs of theorems. Lines and other geometric figures are graphed in the rectangular coordinate system. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 or equivalent with a "C" or better.

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

Natural Sciences: 6

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

- Choose one Biological Science course and one Physical Science course.
At least one course must be a Core Natural Science course indicated by the ♦ symbol.

(Any student who successfully completes a Science course for which one of the general education core course options in Science is an immediate prerequisite shall be considered to have completed the Science core.)

Biological Sciences

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the

subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

♦ **Core General Education**

Physical Sciences

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AST 1005 - Introduction to Astrobiology

3 Credit Hours
(Spring)

This course will explore the scientific evidence for the possibility, probability, and potential nature of life that might exist beyond the Earth. Contemporary discoveries about current and past conditions suitable for the origin of life on Mars and some of the moons orbiting other planets in our own solar system are reviewed in the context of what we understand about life on Earth. The question of life in other solar systems is also covered. Space travel and problems regarding intelligent extra-terrestrial beings visiting the Earth and intelligent life beyond the Earth but still within our own solar system are also discussed. All this is done in a fashion which integrates the various branches of science required to understand life beyond the Earth: Astronomy, Biology, Chemistry, Geology, and Physics. There are no prerequisites for this course and it may be taught in a team fashion by faculty members from various scientific disciplines.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

ISC 1003 - Natural Disasters – Causes, Consequences, Human Response

3 Credit Hours
(Fall, Spring, Summer)

This interdisciplinary course investigates natural catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, hurricanes and floods. This class will use an environmental studies approach to examine how modern society exacerbates the damage caused by these natural phenomena and methods to mitigate human suffering. The student will gain an appreciation of humankind's relationship to the natural environment.

MET 1010C - Introduction to Meteorology

4 Credit Hours
(Fall, Spring, Summer)

Structure of the atmosphere; weather processes, systems and phenomena; climate and climatic change, economic impact of weather. May be used to satisfy the AA degree Physical Science requirement for career goals other than sciences, engineering and pre-professional fields.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

OCE 1013C - Aquatic Environmental Science

4 Credit Hours
(Offered as needed)

This course will investigate living and non-living components of aquatic ecosystems. Students will learn how aquatic ecosystems function naturally as well as how human activity can alter these ecosystems. The course is built around field trip(s) and lab work during which students will obtain water quality data from a local aquatic environment. Through field trip(s) and lab work, students will gain appreciation for the local relevance of course material. For both majors and non-majors, a key outcome of such experiences will be gaining experience in using inquiry and reasoning through the scientific method and becoming comfortable with data, technology, and instrumentation. Problem-solving, interpretation of data, and class discussions will be key.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

♦ Core General Education

Social Sciences: 6

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

- Choose one Behavioral Social Science course and one History/Government Social Science.
At least one course must be a Core Social Science course indicated by the ♦ symbol, or
- Choose two History/Government Social Sciences courses.
At least one course must be a Core Social Science course indicated by the ♦ symbol.

Behavioral Social Sciences

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ANT 2100 - Introduction to Archaeology

3 Credit Hours ♦
(Offered as Needed)

Introduction to the fundamental principles, methods, and theories in archaeology. Includes a history of the development of archaeology, and examination of the nature of archaeological data and research, an introduction to archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but non-western examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEA 1000 - World Regional Geography

3 Credit Hours ◆
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

PSY 2012 - Psychology

3 Credit Hours ◆
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ◆ ◆
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- ◆ **Core General Education**
- ❖ **International and/or diversity focus**

History/Government Social Sciences

A minimum grade of "C" in each History/Government Social Science course is required for general education credit.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

SYG 2010 - Social Problems

3 Credit Hours ◆ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1012 - World Civilization: Early Humans through Global Expansion

3 Credit Hours ◆ ¶
(Offered Fall, Spring, Summer)

A study of world history from 4000 BC to 1650 AD as it relates to the development of western civilization. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communication/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

A study of history from 1650 AD to the present as it relates to the development of the modern world. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

♦ **Core General Education**

❖ **International and/or diversity focus**

¶ **Writing requirements**

Additional General Education Credits: 6

Additional General Education Credits should be selected in alignment with a student's choice of transfer major. Any general education hours over a total of 36 will apply as electives in the AA degree. Consult with an academic advisor for assistance.

ASL 1140 - American Sign Language I

4 Credit Hours ♦

(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour

(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲

(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills –

listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ❖
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- _____ - Any A.A. General Education Communications, Mathematics, Humanities, Natural Science, or Social Science course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ♦ **International and/or diversity focus**

Total AA General Education Credits Required: 36

Footnote Legend

Symbol	Description
◆	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.
▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.
†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
Ω	Courses listed with this symbol have a Civic Literacy Competency.

AA Degree Checklist:

- Have you completed a minimum of 60 credit hours in the following areas?
 - 36 Hours of General Education
 - 6 hours in Communications ("C" or better)
 - 6 hours in Mathematics ("C" or better)
 - 6 hours in Humanities ("C" or better)
 - 6 hours in Natural Science
 - 6 hours in Social Sciences ("C" or better in History/Government Social Science category)
 - 6 hours in Additional General Education Credits (if needed)
 - 24 hours of college credit A.A. transferable electives
- Have you completed at least 15 of the 60 credits at NWF State College?
- Have you completed the foreign language requirement?
- Have you met the minimum 2.0 GPA requirements for the A.A.?
- Have you met the Civic Literacy Competency (FAC Rule 6A-10.02413) requirement for the A.A.?

AAS Degree General Education Requirements

All A.A.S. degree programs at NWF State College require a minimum of 18 college credits in general education. Unless otherwise specified in the program requirements, students must complete one course from each of the following categories to meet general education requirements.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options (designated with ◆) in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social Sciences. The A.A.S. degree programs provide flexibility for entering the job market or continuing education. Students who take general education courses are guaranteed transfer of those courses when continuing their education within the Florida College and University System.

NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA, AS, and AAS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

Communications: 3

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

LIN 1670 - Writing and Grammar

3 Credit Hours (Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

- _____ - Any other AA General Education Communications Course
 - ◆ **Core General Education**
 - ▲ **Technology-Across-the Curriculum**
 - ¶ **Writing requirements**

Humanities: 3

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

ARH 1000 - Art Appreciation

3 Credit Hours ◆ † ◆ ¶ (Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

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- _____ - Any other AA General Education Humanities course with the † symbol or any General Education Humanities course AND another course with the † symbol.
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Mathematics: 3

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

MAT 1033A - Intermediate Algebra

4 Credit Hours **(Fall, Spring, Summer)**

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MAC 1105 - College Algebra

3 Credit Hours ♦ **(Fall, Spring, Summer)**

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦ **(Fall, Spring, Summer)**

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):
Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 123 or higher on the math section of the PERT OR
(2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
(3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

____ - Any other AA General Education Mathematics course

♦ **Core General Education**

Natural Sciences: 3

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Natural Science course

♦ **Core General Education**

Social Sciences: 3

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the

dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Social Science course
 - ♦ **Core General Education**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Additional General Education Credits: 3

ASL 1140 - American Sign Language I

4 Credit Hours ♦
(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will

enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in

preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †

(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦

(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- _____ - Any other AA General Education course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ❖ **International and/or diversity focus**

Total AAS General Education Credits Required: 18

Footnote Legend

Symbol	Description
♦	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.
▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.
†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
¶	Courses listed with this symbol meet writing requirements outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AAS Degree Checklist:

- Have you completed a minimum of 18 credit hours in the following areas?
 - 3 hours in Communications
 - 3 hours in Humanities
 - 3 hours in Social Sciences
 - 3 hours in Mathematics
 - 3 hours in Natural Sciences
 - 3 Additional hours in General Education Credits
- Have you completed the required Core and Technical Elective course work for your A.A.S. degree?
- Have you completed at least 25% of the total number of credits for your A.A.S. degree at NWF State College?
- Have you met the minimum 2.0 GPA requirements for the A.A.S.?

AS Degree General Education Requirements

All A.S. degree programs at NWF State College require a minimum of 18 college credits in general education. **Unless otherwise specified in the program requirements**, students must complete one course from each of the following categories to meet general education requirements.

To assure that graduates of the state university and state college systems share a common base of General Education requirements, the State of Florida has designated general education core course options (designated with ♦) in each of five areas of study—Communication, Humanities, Mathematics, Natural Sciences, and Social Sciences. The A.S. degree programs provide flexibility for entering the job market or continuing education. Students who take general education courses are guaranteed transfer of those courses when continuing their education within the Florida College and University System.

NWF State College has embedded the core competencies of speaking, writing, and technology in both the AA and AS programs of study; by program design, all AA and AS graduates take courses that allow them to demonstrate their abilities in these important life skills.

Communications: 3

Students will demonstrate the ability to communicate effectively.

Students will demonstrate the ability to analyze communication critically.

A minimum grade of "C" in each Communications course is required for general education credit.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a

Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Any other AA General Education Communications Course
 - ◆ **Core General Education**
 - ▲ **Technology-Across-the Curriculum**
 - ¶ **Writing requirements**

Humanities: 3

Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy.

Students will acquire competence in reflecting critically upon the human condition.

A minimum grade of "C" in Humanities courses is required for general education credit.

ARH 1000 - Art Appreciation

3 Credit Hours ◆ † ◆ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1020 - Humanities – Introduction

3 Credit Hours ◆ † ◆ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUL 1010 - Music Appreciation

3 Credit Hours † ◆ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Any other AA General Education Humanities course with the † symbol or any General Education Humanities course AND another course with the † symbol.
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Mathematics: 3

Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem solving.

All Mathematics courses listed below meet Mathematics requirements outlined in FAC Rule 6A-10.030.

A minimum grade of "C" in Mathematics courses is required for general education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):
Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 123 or higher on the math section of the PERT OR
(2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
(3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Mathematics course
- ♦ **Core General Education**

Natural Sciences: 3

Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - Any other AA General Education Natural Science course

♦ **Core General Education**

Social Sciences: 3

Students will demonstrate the ability to examine behavioral, social, and cultural issues from a variety of points of view.

Students will demonstrate an understanding of basic social and behavioral science concepts and principles used in the analysis of behavioral, social, and cultural issues, past and present, local and global.

A minimum grade of "C" in courses with the ¶ symbol is required for general education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- ____ - Any other AA General Education Social Science course
 - ♦ **Core General Education**
 - ❖ **International and/or diversity focus**
 - ¶ **Writing requirements**

Additional General Education Credits: 3

ASL 1140 - American Sign Language I

4 Credit Hours ♦
(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

- _____ - Any other AA General Education course
 - ♦ **Core General Education**
 - † **Speaking-Across-the Curriculum**
 - ▲ **Technology-Across-the Curriculum**
 - ❖ **International and/or diversity focus**

Total AS General Education Credits Required: 18

Footnote Legend

Symbol	Description
♦	Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state Core General Education requirements.
▲	Courses listed with this symbol address NWF State College's Technology-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic technology use.

†	Courses listed with this symbol address NWF State College's Speaking-Across-the Curriculum student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
❖	Courses listed with this symbol have an international and/or diversity focus and meet Teacher Education Programs' common prerequisites.
¶	Courses listed with this symbol meet writing requirements outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AS Degree Checklist:

- Have you completed a minimum of 18 credit hours in the following areas?
 - 3 hours in Communications – ("C" or better)
 - 3 hours in Humanities – ("C" or better)
 - 3 hours in Social Sciences
 - 3 hours in Mathematics ("C" or better)
 - 3 hours in Natural Sciences
 - 3 Additional hours in General Education Credits
- Have you completed the required Core and Technical Elective course work for your A.S. degree?
- Have you completed at least 25% of the total number of credits for your A.S. degree at NWF State College?
- Have you met the minimum 2.0 GPA requirements for the A.S.?

Bachelor Degrees

- BAS Program Information
- BAS Graduation Requirements
- BS in Early Childhood Education Program Information
- BS in Teacher Education Program Information
- BS in Early Childhood Education Graduation Requirements
- BS in Teacher Education Graduation Requirements
- BS in Nursing Program Information and Graduation Requirements

Bachelor Degrees

Bachelor of Applied Science (BAS) Degree

BAS in Management and Supervision Degree

BAS in Project Management Degree

NWF State College is approved by the State of Florida Board of Education to offer the **Bachelor of Applied Science Degree in Project Management (BAS)** and the **Bachelor of Applied Science Degree in Management and Supervision (BAS)**.

The BAS degree offers students a unique opportunity to gain the skills and knowledge necessary for career advancement in a variety of areas. Program content has been developed with input from local employers and is reflective of traditional business management degrees, as well as of the technical skills identified by various professional organizations.

There are four pre-planned areas of emphasis in the **Management and Supervision** program. Areas of specialization include:

- Healthcare Management
- Human Resources Management
- Military Science and Leadership
- Supervision

There are five pre-planned areas of emphasis in the **Project Management** program. Areas of specialization include:

- Acquisitions
- Logistics
- Project Management
- Quality Improvement
- Technology Management

The BAS program provides a career-ladder for students who have already completed an associate's degree and who wish to continue their education at the bachelor's level, or beginning students may design a program of study for the degree as early as the freshman year if they have not yet obtained an associate's degree.

Coursework for the degree is designed with the working student in mind and is offered with classes available evenings, weekends, in concentrated fast-track terms, through eCampus/Distance Learning, or structured as "blended/hybrid" classes (part traditional classroom and part non-traditional format). Coursework incorporates

internships, seminars, and other work-based learning activities designed to ensure students acquire the latest skills and content. Students receive the full range of articulation and transfer rights guaranteed by Florida law through common course numbering and the statewide articulation agreement.

Graduation Requirements for the BAS Degrees

Students seeking a Bachelor of Applied Science degree must meet the following requirements:

- Complete applicable admission requirements for the program. See the Admissions section of the catalog.
- Complete at least 25% of the course work towards the program at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Complete A.A. General Education requirements, including all Gordon Rule course requirements with minimum grades ("C").
- Completion of two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination.
- Successfully complete at least forty (40) credits of approved upper division coursework in the major.
- Complete at least 50% of the upper division program course work in residence at NWF State College.
- Complete a minimum of one hundred and twenty (120) college credits applicable toward the BAS degree.
- Satisfy all outstanding obligations to the college.

Bachelor of Applied Science

Management and Supervision - Health Care Management (BAS)

Admission Program of Study Code BSHC
State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****

- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - Foreign Language
- ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Healthcare Management

HSA 3110 - Health Care Organization and Management

3 Credit Hours (Spring, Summer)

This course focuses on the structure and management of health care organizations, and the fundamental issues facing the U.S. health care system. Key topics include health status, the organization of health services, manpower, public health, financing, facilities, utilization, quality, regulation, and national health policy.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3111 - Introduction to Health Care Management

3 Credit Hours (Fall, Spring)

This course studies the administration, organization and delivery of health care in the United States. Topics to be examined include health care leadership, management, strategy, performance improvement, information technology, insurance, financial and human resources management, as well as ethical and legal concepts.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4191 - Health Information Systems

3 Credit Hours (Fall)

This course focuses on the theories, concepts and principles of health information systems and development of critical thinking skills for use in practice/working in health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying evidence-based knowledge, will analyze the design and implementation of health care information systems.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4922 - Capstone: Health Care Management

3 Credit Hours (Spring)

This course integrates the information, skills, and abilities provided throughout the Health Administration Program in a capstone project. Students complete a project that demonstrates excellence by applying the knowledge gained from the core courses and materials studied throughout the program. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Total Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Health Care Management (BAS) (BSHC)
First Year
Fall Semester
GEB 3213 - Business and Administrative Communication 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

HSA 3111 - Introduction to Health Care Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 3320 - Law and Business **3 Credit Hours**

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

HSA 3110 - Health Care Organization and Management **3 Credit Hours**

MAN 3240 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAR 4333 - Marketing Strategy **3 Credit Hours**

HSA 4191 - Health Information Systems **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HSA 4922 - Capstone: Health Care Management **3 Credit Hours**

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Human Resources Management (BAS)

Admission Program of Study Code BSHR

State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours (Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and

procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies

and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Human Resources Management

HUS 4950 - Capstone: Human Resources Management

3 Credit Hours
(Spring)

This capstone will build upon and integrate the primary human resource management skills introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge in the field of human resources.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3310 - Issues in Human Resource Management

3 Credit Hours
(Fall, Spring)

Introduces the full range of human resource management functional areas, including recruiting and hiring staff, performance evaluations, employment regulations, discipline and termination, downsizing, compensation and

benefits, job analysis, the organized labor setting, equity/diversity issues, and policy design. Approach will focus on current issues and applications.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3320 - Employee Staffing and Benefits

3 Credit Hours
(Fall)

An intermediate level course in employment staffing issues focusing on staffing patterns, organizational structures, job analysis and design, staffing efficiencies, employee assistance programs, staff projection models, and employee services.

Prerequisite(s): upper division standing and MAN 3310 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3350 - Training and Development

3 Credit Hours
(Fall, Summer)

Covers various staff training and development models, effective workshop techniques, designing and implementing company-wide training and development programs. Assessment of training needs, training and development as a benefit and setting development goals; students will design and conduct at least one workshop/training session for fellow students.

Prerequisite(s): upper division standing and GEB 3213 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum

grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN

MAR

PAD

Total Technical Elective Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Human Resources Management (BAS) (BSHR)

First Year

Fall Semester

GEB 3213 - Business and Administrative Communication **3 Credit Hours**

MAN 3052 - Management Philosophy and Practice **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

MAN 3310 - Issues in Human Resource Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 3320 - Law and Business **3 Credit Hours**

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3320 - Employee Staffing and Benefits **3 Credit Hours**

MAN 3240 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15
Second Year
Fall Semester
QMB 3250 - Quantitative Methods for Business Decisions 3 Credit Hours
FIN 4402 - Financial and Economic Management 3 Credit Hours
MAR 4333 - Marketing Strategy 3 Credit Hours
MAN 3350 - Training and Development 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
HUS 4950 - Capstone: Human Resources Management 3 Credit Hours
MAN 4720 - Strategic Planning and Management 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Military Science and Leadership (BAS)

Admission Program of Study Code BSMS

State CIP code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Military Science and Leadership

MSL 3201 - Adaptive Team Leadership

3 Credit Hours
(Fall)

Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3202 - Leadership in Changing Environments

3 Credit Hours
(Spring)

Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, and apply principles and techniques of effective written and oral communication.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4301 - Developing Adaptive Leaders

3 Credit Hours
(Fall)

Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4302 - Leadership in a Complex World

3 Credit Hours
(Spring)

Capstone course to explore topics relevant to second lieutenants entering the army, describe legal aspects of decision making and leadership, analyze army organization from tactical to strategic level.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

These hours should be designed as a progression towards a student's future workforce or educational goals.

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

Total Program Credits Required: 120

Suggest Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Military Science and Leadership (BAS)
First Year
Fall Semester
GEB 3213 - Business and Administrative Communication 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
MSL 3201 - Adaptive Team Leadership 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
BUL 3320 - Law and Business 3 Credit Hours
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
MAN 3240 - Organizational Behavior 3 Credit Hours
MSL 3202 - Leadership in Changing Environments 3 Credit Hours

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MSL 4301 - Developing Adaptive Leaders **3 Credit Hours**

MAR 4333 - Marketing Strategy **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

MSL 4302 - Leadership in a Complex World **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Management and Supervision - Supervision (BAS)

Admission Program of Study Code BSSP

State CIP Code 1105202991

See the BAS Management and Supervision Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- ____ - General Education Biological Sciences **3 Credit Hours***
- ____ - General Education Physical Sciences **3 Credit Hours***
- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours

(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours

(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours

(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours

(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Supervision

ISM 4011 - Information Systems Management

3 Credit Hours
(Spring)

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours
(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3903 - Operations Research

3 Credit Hours
(Fall)

Operations Research is a science of modeling and optimization. It allows to model real-world problems by

using mathematics, statistics and computers. It provides us the tools and theories to solve real-world problems by finding the optimal solutions to models subject to constraints of time, labor, resource, materials and business rules. With Operations Research, people make intelligent decisions to develop and manage their processes and businesses.

Prerequisite(s): Upper division standing is required. STA 2023, MAC 1140, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4940 - Capstone: Supervision

3 Credit Hours (Spring)

This capstone course will build upon and integrate the primary management skills and concepts introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge. This course will also cover basic entrepreneurial principles, which will be integrated throughout the student-led projects.

Prerequisite(s): Senior standing and completion of program core and emphasis business courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120**Suggested Two Year Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Management and Supervision - Supervision (BAS) (BSSP)
First Year
Fall Semester
GEB 3213 - Business and Administrative Communication 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
MAN 3903 - Operations Research 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
BUL 3320 - Law and Business 3 Credit Hours
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
MAN 3240 - Organizational Behavior 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
FIN 4402 - Financial and Economic Management 3 Credit Hours
MAN 3593 - Logistics and Supply Chain Management-DNU 3 Credit Hours

MAR 4333 - Marketing Strategy **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ISM 4011 - Information Systems Management **3 Credit Hours**

MAN 4720 - Strategic Planning and Management **3 Credit Hours**

MAN 4940 - Capstone: Supervision **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Acquisitions (BAS)

Admission Program of Study Code BSAQ

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***

- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours (Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required courses for the Emphasis in Acquisitions

BUL 4333 - Contract Formation and Administration

**3 Credit Hours
(Fall, Spring)**

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4931 - Acquisition Law Seminar

**3 Credit Hours
(Spring)**

This course addresses contract law as applicable to formation and administration of contracts with private and governmental agencies, with emphasis on the federal government. The following topics are also included: concepts of responsiveness and responsibility, bidding procedures, mistakes, negotiation procedures, changes, claims and dispute resolution. Students will explore the typical contracting problems that can lead to litigation.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3574 - Acquisition Management

**3 Credit Hours
(Spring)**

Students will be exposed to the fundamentals of government acquisitions. This course provides conceptual material on government acquisitions, to include program planning, execution, and control. Students will be introduced to the elements of program risk and learn risk management techniques. The systems engineering process will be emphasized to include work breakdown structures, cost -- benefit analysis, and scheduling.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4930 - Capstone: Acquisition Management

**3 Credit Hours
(Spring)**

In this seminar, students will have the opportunity to participate in hands-on projects applying the techniques in MAN 3574 - Acquisition Management. Emphasis will be on government acquisition management. Students will create a work-breakdown structure, a project schedule, and perform a cost-benefit analysis of alternatives. Earned value management will be introduced as a method of program control. Students will also identify potential risk areas and suggest mitigation plans.

Prerequisite(s): Senior standing and completion of program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Acquisitions (BAS) (BSAQ)**First Year****Fall Semester**

GEB 3031 - Contemporary Business Practices **3 Credit Hours**

GEB 3213 - Business and Administrative Communication **3 Credit Hours**

BUL 3320 - Law and Business **3 Credit Hours**

MAN 3052 - Management Philosophy and Practice **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3574 - Acquisition Management **3 Credit Hours**

MAN 3583 - Project Management **3 Credit Hours**

BUL 4333 - Contract Formation and Administration **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year**Fall Semester**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 4931 - Acquisition Law Seminar **3 Credit Hours**

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4930 - Capstone: Acquisition Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Logistics (BAS)

Admission Program of Study Code BSLG

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24**Total Lower Division (Associate Degree) Requirements: 60****Foreign Language**

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements***Core Requirements****ACG 3083 - Accounting: Concepts and Practice****3 Credit Hours
(Fall, Spring)**

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business**3 Credit Hours
(Fall, Spring)**

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management**3 Credit Hours
(Fall, Spring, Summer)**

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours (Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours (Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Logistics

ENV 4610 - Sustainable Logistics

3 Credit Hours
(Spring)

This course introduces students to current and future trends in logistics technology, policy and sustainability. Topics

include, source sustainability, environmental impacts of existing and emerging technologies, and local environmental conditions and the global climate.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3505 - Production Operations and Logistics Management

3 Credit Hours

(Spring)

This course examines the integration of production operations and logistics management and how this enables an organization to compete successfully in business. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, and inventory management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours

(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4570 - Purchasing and Materials Management

3 Credit Hours

(Fall)

The management of purchasing and the materials for production processes. Cost/price analysis, computer systems, forecasting, materials requirements, negotiations, and contracting are included.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

These hours should be designed as a progression towards a student's future workforce or educational goals.

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

Project Management – Logistics (BAS)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
MAN 3583 - Project Management 3 Credit Hours
MAN 3593 - Logistics and Supply Chain Management 3 Credit Hours
MAN 3505 - Production Operations and Logistics Management 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
GEB 3434 - Ethics for Business Leaders 3 Credit Hours
GEB 3444 - Business Trends and Issues 3 Credit Hours
MAN 4570 - Purchasing and Materials Management 3 Credit Hours
QMB 3250 - Quantitative Methods for Business Decisions 3 Credit Hours
Technical Elective 3 Credit Hours

Total Semester Hours: 15
Spring Semester
ENV 4610 - Sustainable Logistics 3 Credit Hours
FIN 4402 - Financial and Economic Management 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Project Management (BAS)

Admission Program of Study Code BSPR

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- _____ - Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- _____ - History/Government Social Sciences **3 Credit Hours****
- _____ - Behavioral Social Sciences **3 Credit Hours****
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Project Management

BUL 4333 - Contract Formation and Administration

**3 Credit Hours
(Fall, Spring)**

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3120 - Leadership and Group Dynamics

**3 Credit Hours
(Spring)**

An applied leadership course with a focus on case studies, projects and group interaction; includes theoretical background on group dynamics, small group behavior and motivation, power, types of groups, verbal and non-verbal communication skills and team-building. Emphasis will be placed on sociological and psychological dimensions of inter-group relations, including analysis and problem-solving through simulations, cases and similar activities which reflect a general business perspective, as well as leadership and group dynamics across a variety of business units/functions.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and MAN 3052, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

**3 Credit Hours
(Spring)**

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

- _____ Approved Upper Division Elective **3 Credit Hours**

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Project Management (BAS) (BSPR)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours

Total Semester Hours: 15

Spring Semester

ACG 3083 - Accounting: Concepts and Practice **3 Credit Hours**

MAN 3120 - Leadership and Group Dynamics **3 Credit Hours**

MAN 3583 - Project Management **3 Credit Hours**

BUL 4333 - Contract Formation and Administration **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

GEB 3444 - Business Trends and Issues **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Approved Upper Division Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4931 - Capstone: Project Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Quality Improvement (BAS)

Admission Program of Study Code BSQU
State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- ____ - General Education Biological Sciences **3 Credit Hours***
- ____ - General Education Physical Sciences **3 Credit Hours***
- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - Foreign Language
- ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Quality Improvement

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours
(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4520 - Quality Management

3 Credit Hours
(Spring)

This course examines the significance of quality as a primary competitive strategy for tomorrow's successful business organizations. The impact of quality focus on increasing customer satisfaction is changing the manner in which business organizations function. Students will recognize that quality focused business organizations are evolving into very different environments in which to work and manage. This quality imperative is relevant for both industrial and service sector organizations. Students will be exposed to the critical issues of total quality management through reading, case studies, class discussion, field trips and outside speakers. The students are expected to gain insight and understanding regarding the meaning of quality, how organizations develop a quality focus, and the continuous nature of quality management. This course is appropriate for students who have an interest in: (1) managing the total quality program in a business organization, and/or (2) working for a business organization which already made a strong commitment to total quality management.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4555 - Quality Certification: ISO 9000

3 Credit Hours (Fall)

A comprehensive study of internationally uniform quality standards (ISO 9000 and the steps to individual and organizational certification; includes management responsibility, quality system documentation, contract review, design control, process control, inspection and testing, corrective actions and other certification topics.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours (Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Technical Electives Course Requirements: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Quality Improvement (BAS) (BSQU)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours

MAN 3583 - Project Management **3 Credit Hours**

MAN 3593 - Logistics and Supply Chain Management-DNU **3 Credit Hours**

MAN 4520 - Quality Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

MAN 4555 - Quality Certification: ISO 9000 **3 Credit Hours**

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

MAN 4931 - Capstone: Project Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Project Management - Technology Management (BAS)

Admission Program of Study Code BSTM

State CIP Code 1105202021

See the BAS Project Management Program Flowchart.

Lower Division Requirements

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- STA 2023 - Statistics or other Core Mathematics **3 Credit Hours** ♦
- MAC 1105 - College Algebra or other General or Core Mathematics **3 Credit Hours** ♦
- ____ - General Education Biological Sciences **3 Credit Hours***
- ____ - General Education Physical Sciences **3 Credit Hours***
- ____ - History/Government Social Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours****
- ____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits: 36

Lower Division Electives: 24

Total Lower Division (Associate Degree) Requirements: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements*

Core Requirements

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours (Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including

persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours
(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Requirements: 30

Required Courses for the Emphasis in Technology Management

ISM 3220 - Network Technologies for Information Professionals

3 Credit Hours
(Fall)

This course is designed to give the student an understanding of the various networking technologies and their practical application in the management of a business. The course also covers the technical issues involved in designing and implementing an efficient network for voice, data, and information networks.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3232 - Software Essentials

3 Credit Hours
(Fall)

This course covers a broad range of software topics as they apply to software management and systems analysis and design. Topics include, but are not limited to programming, the systems development life cycle (SDLC), systems management, interface design and Internet technology.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3323 - Applications in Information Security

**3 Credit Hours
(Spring)**

This course helps develop the important security concepts relative to software application development and access control that provide the knowledge and skills necessary for the successful management of information security in an organization. Students will understand the environment where software is designed and developed as well as the critical role software plays in providing security to an organization's information systems. The course focuses on software development concepts that relate to security, and how access control methodologies fit into the entire enterprise architecture.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4011 - Information Systems Management

**3 Credit Hours
(Spring)**

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

Total Emphasis Requirements: 12

Technical Electives*

Students will work with an advisor to develop a program of study that includes upper division technical electives from the approved list below:

ACG
BUL
GEB
HSA
ISM

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAN
MAR
PAD

Total Electives Course Requirement: 18

Total Upper Division Credits Required*: 60

*Depending on the student's associate's degree, with department approval, some lower division credits may be substituted for upper division credits in the technical electives area.

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Project Management - Technology Management (BAS) (BSTM)
First Year
Fall Semester
GEB 3031 - Contemporary Business Practices 3 Credit Hours
GEB 3213 - Business and Administrative Communication 3 Credit Hours
ISM 3232 - Software Essentials 3 Credit Hours
MAN 3052 - Management Philosophy and Practice 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Spring Semester
ACG 3083 - Accounting: Concepts and Practice 3 Credit Hours
BUL 3320 - Law and Business 3 Credit Hours
MAN 3583 - Project Management 3 Credit Hours
ISM 3323 - Applications in Information Security 3 Credit Hours
Technical Elective 3 Credit Hours
Total Semester Hours: 15
Second Year
Fall Semester
ISM 3220 - Network Technologies for Information Professionals 3 Credit Hours

GEB 3434 - Ethics for Business Leaders **3 Credit Hours**

GEB 3444 - Business Trends and Issues **3 Credit Hours**

QMB 3250 - Quantitative Methods for Business Decisions **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

FIN 4402 - Financial and Economic Management **3 Credit Hours**

ISM 4011 - Information Systems Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Upper Division Program Hours: 60

Return to BAS Degree (PM)

Return to Bachelor of Applied Science (BAS) Degree

Bachelor of Science (BS) Degree in Education

BS in Early Childhood Education, Birth through Four Degree - Offered Online

The **Bachelor of Science Degree in Early Childhood Education, Birth through Four** is designed to prepare students to work in programs serving children ages 0-4 years. Graduates will be prepared to advance in the Early Childhood career field. The degree offers a career ladder for students earning the Associate of Science in Early Childhood Education at NWF State College, which includes the state-mandated prerequisite courses. Students earning an A.A. may also enter this program after completing the state-mandated prerequisite courses. Coursework is designed for the working adult, and is offered online.

BS in Teacher Education Degrees

NWF State College is approved by the Florida Board of Education to offer the **Bachelor of Science in Elementary Education**, which leads to state certification in teacher education. This degree is designed to provide a career ladder for those who have already completed an Associate in Arts (A.A.) degree or have 60 hours of acceptable lower division coursework and who wish to continue their education at the bachelor's level. The Bachelor of Science in Elementary Education also includes endorsements in Reading and English for speakers of other languages.

Graduation Requirements for BS in Childhood Education, Birth through Four Degree

Students seeking a Bachelor of Science degree in Childhood Education, Birth through Four must meet the following requirements:

- Complete applicable admission requirements for the program. See the Admissions section of the catalog.
- Complete at least 25% of the course work towards the program at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Earn a minimum grade ("C") in all core course work.
- Successfully complete all coursework within the major field of study with a cumulative GPA of at least 2.00.
- Complete A.A. General Education requirements, including all Gordon Rule course requirements with minimum grades ("C").
- Completion of two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination.
- Complete at least 50% of the upper division program course work in residence at NWF State College.
- Complete a minimum of one hundred and twenty (120) college credits applicable toward the B.S. degree.
- Satisfy all outstanding obligations to the college.

Graduation Requirements for BS in Teacher Education Degree

Students seeking a Bachelor of Science degree in Education must meet the following requirements:

- Complete applicable admission requirements for the program. See the Admissions section of the catalog.
- Complete at least 25% of the course work towards the program at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Earn a minimum grade ("C") in all upper division course work.
- Successfully complete all coursework within the major field of study with a cumulative GPA of at least 2.50.
- Complete A.A. General Education requirements, including all Gordon Rule course requirements with minimum grades ("C").
- Completion of two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination.
- Complete at least 50% of the upper division program course work in residence at NWF State College.
- Pass the three Florida Teacher Certification Examinations: General Knowledge, Professional Education and appropriate Subject Area.
- Complete a minimum of one hundred and twenty (120) college credits applicable toward the B.S. degree.
- Satisfy all outstanding obligations to the college.

Bachelor of Science

Early Childhood Education, Birth through Four (BS)

Admission Program Objective Code BSEB
State CIP Code 1101312102

The Bachelor of Science in Early Childhood Education, Birth through Four is designed to prepare students to work in programs serving children ages 0-4 years. Graduates will be prepared for advancement in the Early Childhood career field. The degree offers a career ladder for students earning the Associate of Science in Early Childhood Education at NWF State College, which includes one state-mandated prerequisite courses. A.S. students will complete an

additional 18 hours of General Education classes during their upper division coursework, after admission to the Early Childhood Education program. Students earning an A.A. may also enter this program after completing the state-mandated prerequisite courses. These students will complete technical classes during their upper division coursework after admission to the Early Childhood Education program. For a detailed summary of graduation requirements for this degree program, see the Bachelor of Science graduation requirement section.

Substitutions for any coursework in this program of study must be approved by the Teacher Education Program Director. Please note that some courses below may require lower division prerequisites not specified as program requirements.

Lower Division Requirements

Unless otherwise specified, select courses from each category, see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

Students entering with an A.S. or A.A.S. degree will have 18 General Education hours and will complete the remaining 18 within the B.S. in Early Childhood coursework.

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- HUM 1020 - Humanities – Introduction **3 Credit Hours** ♦ † ♦ ¶ (meets 3 hours of diversity credits)
- _____ - Core Humanities **3 Credit Hours**
- MGF 1106 - Practical Applications of Mathematics or other Core Mathematics **3 Credit Hours** ♦
- _____ - General or Core Mathematics **3 Credit Hours** ♦
- _____ - General Education Biological Sciences **3 Credit Hours***
- _____ - General Education Physical Sciences **3 Credit Hours***
- WOH 1012 - World Civilization: Early Humans through Global Expansion **3 Credit Hours** ♦ ¶ ** OR WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present **3 Credit Hours** ♦ ¶ ** (meets 3 hours of diversity credits)
- SYG 2000 - Sociology **3 Credit Hours** ♦ ♦ ** (meets 3 hours of diversity credits)
- _____ - Additional General Education Credits **6 Credit Hours**

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits Required: 36

State-Mandated Prerequisites

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student

will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

Total State-Mandated Prerequisite Credits Required: 3

Diversity Requirement

Within the AA or AS coursework, students must meet the state-mandated diversity requirement of 6 credit hours with an international or diversity focus.

Diversity courses: ANT 2000, ANT 2100, ARH 1000, ARH 2050, ARH 2051, ARH 2060, ARH 2402, ASL 1140, ASL 1150, ASL 2160, CHI 1120, CHI 1121, EEX 2010, FRE 1120, FRE 1121, GEA 1000, HUM 1020, HUM 2250, HUM 2700, IDS 2220, LIT 2090, LIT 2100, LIT 2120, LIT 2335, LIT 2603, PHI 2010, PHI 2600, POT 1002, REL 2300, SPN 1120, SPN 1121, SPN 2220, SPN 2221, SYG 2000.

Total Lower Division (Associate Degree) Credits Required: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Requirements

Program Content Courses

Students entering with an A.S. or A.A.S. degree will complete 18 General Education hours within the B.S. in Early Childhood coursework. Students entering with an A.A. degree will complete 18 hours of Early Childhood technical coursework within the B.S. in Early Childhood, in accordance with a signed program of study designed by a program advisor.

DEP 2100 - Child Growth and Development

**3 Credit Hours
(Fall, Spring, Summer)**

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEC 3213 - Teaching the Language Arts In Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on the development of language and literacy in children ages birth through age four. Emphasis will be placed on understanding the process of emergent literacy including vocabulary and language, phonological awareness, print knowledge and comprehension; and on designing a developmentally appropriate language arts program in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3227 - Art, Music, and Movement

3 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of the creative developmental process in the life of

children from birth through four years old. Emphasis will be placed on the teacher's role in developing opportunities and materials for young children to express themselves creatively through music, drama, dance and two- and three-dimensional art and on providing varied opportunities for young children to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies

3 Credit Hours
(Offered as needed)

This course is designed to prepare students to teach social studies in the early childhood classroom. Emphasis is on implementing the project approach to investigate components of social studies to include: individual development and identity; people, places, and environments, technology and our world; and civic ideals and practices. The student will increase and apply knowledge and skills in the Florida Early Learning and Developmental Standards relevant to this content area.

EEC 3511 - Curriculum for Infants and Toddlers

3 Credit Hours
(Offered as needed)

The focus of this course will be on the design, implementation and evaluation of programming and curriculum that promotes growth and development of young children birth to three years old and aligns with the early learning and developmental standards. Study of typical and atypical development will be included. Emphasis will be on working effectively with families of infants and toddlers.

EEC 3524 - Professionalism/Program Development

4 Credit Hours
(Offered as needed)

Focus of this course will be on management and leadership in early childhood education programs. Topics will include mentoring adults, professional development, staff assessment, program evaluation, and child advocacy. Career options in the field of early childhood education will be explored. This course will require observing and participating in a program or agency related to early childhood education.

EEC 4404 - Families and Diversity

3 Credit Hours
(Offered as needed)

This course will focus on building positive relationships with families through communication and involvement. Focus will include developing an awareness of diversity and multicultural considerations in working with families of young children. The course will explore the role of the family and the influence of the community on the development of young children in a diverse society; and will prepare the student to work effectively with families and communities.

EEC 4421 - Teaching Math and Science in Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of how concepts, skills and attitudes in early childhood mathematics and science are developed in young children ages birth through age four. Math topics will include number sense and operations, patterns, geometry, and measurement. Science topics will include scientific inquiry, physical science, life science and earth science. Emphasis will be on the alignment of the Early Learning and Developmental Standards with a developmentally appropriate approach to teaching math and science in the early childhood classroom. This course will require observing and participating in an early childhood classroom.

EEC 4613 - Systematic Observation and Assessment

3 Credit Hours
(Offered as needed)

The focus of this course will be on understanding the purpose of child assessment, implementing developmentally appropriate practices in formal and informal child assessment, and using assessment results to support learning, to identify special needs, to evaluate programs, and to respond to program accountability requirements. A field experience is required to practice various methods of assessment in an early childhood setting.

EEC 4940 - Internship

9 Credit Hours
(Fall, Spring)

Supervised teaching in an assigned Early Childhood Education setting. Student teaching assignments will be made by the Department of Teacher Education Office. This course requires a minimum grade of "C". Current background check (fingerprinting) is required for this course.

Prerequisite(s): Upper Division standing with permission of Department Chair

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3604 - Classroom Management in Early Childhood Education

3 Credit Hours
(Offered as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

EEX 4201 - Young Children with Special Needs

3 Credit Hours
(Offered as needed)

The focus of this course will be on working with young children birth through age four in an inclusive early childhood classroom. Emphasis will be on identifying typical and atypical development, creating an inclusive early childhood learning environment, understanding special education law, developing an awareness of resources for inclusive practice to meet the needs of young children and their families.

Total Upper Division Credits Required: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Early Childhood Education, Birth through Four (BS) (BSEB) - For students admitted with an AS degree
First Year
Fall Semester
EEC 3227 - Art, Music, and Movement 3 Credit Hours
EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies 3 Credit Hours
General Education Course 3 Credit Hours
General Education Course 3 Credit Hours
Total Semester Hours: 12
Spring Semester
EEC 4404 - Families and Diversity 3 Credit Hours
EEC 3511 - Curriculum for Infants and Toddlers 3 Credit Hours
EEC 3524 - Professionalism/Program Development 4 Credit Hours
EEC 3213 - Teaching the Language Arts In Early Childhood Education 4 Credit Hours
Total Semester Hours: 14
Summer Semester
EEX 4201 - Young Children with Special Needs 3 Credit Hours
EEC 4421 - Teaching Math and Science in Early Childhood Education 4 Credit Hours

General Education Course **3 Credit Hours**

Total Semester Hours: 10

Second Year

Fall Semester

EEC 4613 - Systematic Observation and Assessment **3 Credit Hours**

General Education Course **2 Credit Hours**

General Education Course **4 Credit Hours**

Total Semester Hours: 12

Spring Semester

EEC 4940 - Internship **9 Credit Hours**

General Education Course **3 Credit Hours**

Total Semester Hours: 12

Total Upper Division Program Hours: 60

Early Childhood Education, Birth through Four (BSEB) - For students admitted with an AA degree

First Year

Fall Semester

EEC 3227 - Art, Music, and Movement **3 Credit Hours**

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies **3 Credit Hours**

EEC 2732 - Child Nutrition, Health and Safety **3 Credit Hours**

EEC 1201 - Infants and Toddlers **3 Credit Hours**

EEX 2010 - Introduction to Exceptional Children **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

EEC 4404 - Families and Diversity **3 Credit Hours**

EEC 3511 - Curriculum for Infants and Toddlers **3 Credit Hours**

EEC 3524 - Professionalism/Program Development **4 Credit Hours**

EEC 3213 - Teaching the Language Arts In Early Childhood Education **4 Credit Hours**

Total Semester Hours: 14

Summer Semester

EEX 4201 - Young Children with Special Needs **3 Credit Hours**

EEC 4421 - Teaching Math and Science in Early Childhood Education **4 Credit Hours**

DEP 2100 - Child Growth and Development **3 Credit Hours**

Total Semester Hours: 10

Second Year

Fall Semester

EEC 4613 - Systematic Observation and Assessment **3 Credit Hours**

EEC 1002 - Early Childhood Program Administration **3 Credit Hours**

EEC 1750 - Guidance for Young Children **3 Credit Hours**

EEX 3604 - Classroom Management in Early Childhood Education **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

EEC 4940 - Internship **9 Credit Hours**

Total Semester Hours: 9

Total Upper Division Program Hours: 60

Elementary Education (BS)

Admission Program Objective Code BSED

State CIP Code 1101312021

The first sixty credits in the following program of study are designed to prepare students not only for the A.A. degree, but also for the General Knowledge exam and Elementary Subject Area exam of the Florida Teacher Certification Exam (FTCE).

If you plan to be an elementary school teacher and are just beginning your A.A. degree, this program of study will best prepare you for that career choice. If you have already completed your A.A. degree and some of your general

education courses differ from those listed below, your A.A. degree will still meet that component of the admission process; however, you may need to complete additional coursework, independent study, or workshops to be well prepared for the FTCE Elementary Subject Area exam. A passing score on the FTCE Elementary Subject Area exam is one of the graduation requirements for this degree. For a detailed summary of graduation requirements for this degree program, see the Bachelor of Science graduation requirement section.

Courses with the "C" designation include extra hours to accommodate field experiences.

Substitutions for any coursework in this program of study must be approved by the Teacher Education Program Director. Please note that some courses below may require lower division prerequisites not specified as program requirements. Requirements for Teacher Education programs may change due to legislative mandate. Candidates should request the most current requirements from the Teacher Education Program Director.

Lower Division (Associate Degree) Courses

Specific General Education and lower division courses are recommended because these courses meet NWF State College general education requirements and cover state content competencies tested on the Elementary Education K-6 subject area section of the Florida Teacher Certification Exams (FTCE), which all students must pass before entering the final internship semester in the Bachelor of Science in Elementary Education Program.

Unless otherwise specified, select courses from each category; see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- ENC 1102 - English Composition II **3 Credit Hours** ¶
- HUM 1020 - Humanities – Introduction **3 Credit Hours** ♦ † ♦ ¶ recommended or other Core Humanities **3 Credit Hours**
- _____ - General or Core Humanities **3 Credit Hours**
- MAC 1105 - College Algebra recommended or other Core Mathematics **3 Credit Hours** ♦
- MGF 1106 - Practical Applications of Mathematics recommended or other General or Core Math **3 Credit Hours** ♦
- BSC_ _____ - General Education Biological Sciences **3 Credit Hours*** (BSC1010C strongly recommended due to FTCE subject area content)
- WOH _____ - World Civilization **3 Credit Hours****
- ECO 2013 - Economics I **3 Credit Hours** ♦ **
- PHY 1020 - Physical Science **3 Credit Hours** ♦
- POS 1041 - American Government **3 Credit Hours** ♦ ¶ Ω
- AMH 2010 - American History I **3 Credit Hours** ¶ or AMH 2020 - American History II **3 Credit Hours** ♦ ¶ Ω

It is recommended that at least one physical or biological science include a lab.

* One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

** One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

At least 6 hours of diversity credits should be included in General Education required credits.

Total General Education Credits Required: 36

State-Mandated Prerequisite

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

Total State-Mandated Prerequisite Credits Required: 3

Additional Lower Division Coursework

AST ____ - Astronomy **3 Credit Hours**

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY ____ - Geological Science **4 Credit Hours**

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAT 1033A - Intermediate Algebra

4 Credit Hours
(Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

Total Additional Lower Division Credits Required: 21

Diversity Requirement

Within the AA or AS coursework, students must meet the state-mandated diversity requirement of 6 credit hours with an international or diversity focus.

Diversity courses: ANT 2000, ANT 2100, ARH 1000, ARH 2050, ARH 2051, ARH 2060, ARH 2402, ASL 1140, ASL 1150, ASL 2160, CHI 1120, CHI 1121, EEX 2010, FRE 1120, FRE 1121, GEA 1000, HUM 1020, HUM 2250, HUM 2700, IDS 2220, LIT 2090, LIT 2100, LIT 2120, LIT 2335, LIT 2603, PHI 2010, PHI 2600, POT 1002, REL 2300, SPN 1120, SPN 1121, SPN 2220, SPN 2221, SYG 2000, SYG 2010, WOH 1012, WOH 1022

Total Lower Division (Associate Degree) Credits Required: 60

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - ____ - Foreign Language
- ____ - ____ - Foreign Language

Upper Division Courses

Program Content Courses

EDE 4223 - Integrating Art, Music, and Physical Education

3 Credit Hours (Summer)

This integrative course provides students with critical understanding of art, music, and physical education. Emphasis is placed on the effective integrative lesson planning and modeling techniques to art, music, and physical education in elementary schools. This course requires a minimum grade of "C".

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4226C - Integrated Language Arts, Social Science and Literature

3 Credit Hours (Fall, Spring)

This course is designed to prepare candidates to teach language arts and social science in elementary classrooms. Teacher candidates will develop units of study that integrate literature, language arts, with social science content. Emphasis is on constructivist principles and methodology. Teacher candidates will plan and deliver standards-based language arts and social science lessons designed to meet the needs of diverse learners including English language learners (ELLs) and students with exceptionalities. This course requires 18 hours of field experience in a K-6 classroom setting. Current background check (fingerprinting) acceptable to the district in which the field experience will take place is required for this course. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4930C - Professional Elementary Educator

1 Credit Hour (Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace. Includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3214 - Human Development and Learning

3 Credit Hours (Summer)

This course is designed to cover the principles of learning and student development with applications to learning/teaching situations. Identification and analysis of students' academic, physical, cognitive, emotional, motivational, and social development is to be emphasized. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3430 - Measurement, Evaluation, and Assessment in Education

3 Credit Hours (Fall, Spring)

This course studies the basic principles and methods of measurement, evaluation, and methods of test construction. Students will interpret standardized test scores, construct teacher-made tests and other classroom assessments, and evaluate portfolio and performance assessment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDG 3410C - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours (Fall, Spring)

Pre-service teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 3343 - Instructional Strategies

3 Credit Hours (Fall, Spring)

This course provides an overview of instructional models and strategies. Emphasis is placed on principles of state standards, instructional methods, and lesson planning and instruction. Students will develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student populations. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C

EDG 4940 - Internship

9 Credit Hours
(Offered as needed)

Supervised teaching in a public or private school. Student teaching assignments will be made by the department of teacher education field placement coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing with permission of department chair.

EDE 4223, EDE 4226C, EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, LAE 4343C, MAE 3350C, RED 3309C, RED 3511C, RED 4312, RED 4519C, SCE 3350C, TSL 3081C, TSL 4140C

EEX 3070 - Methods of Inclusion and Collaboration

3 Credit Hours
(Summer)

This course examines the basic identification techniques and strategies used to promote academic and social integration and interaction of "mainstreamed" exceptional students. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

LAE 4343C - Writing Across the Curriculum

3 Credit Hours
(Offered as needed)

This course prepares pre-service teachers by developing an understanding of the foundations of writing through the use of writers workshops and instructional strategies necessary to provide adequate instruction to emergent, novice, and transitional writers. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 3350C - Principles and Methods for Teaching Mathematics K-8

3 Credit Hours
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in grades K-8. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3309C - Early and Emergent Literacy K-2

3 Credit Hours
(Fall, Spring)

This course is designed to increase the understanding of early literacy development and the conditions which promote total literacy from birth through lower elementary grades. Language theory and current research are used to shape informed practices regarding literacy development. Connections are made among all aspects of literacy learning: reading, writing, listening, speaking and attitude development. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3511C - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4312 - Integration of Assessment into Classroom Reading

3 Credit Hours
(Summer)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on integrating assessments into the curriculum to strengthen instructional strategies and student success. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): RED 3309C, RED 3511C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4519C - Diagnostic and Instructional Interventions in Reading

3 Credit Hours
(Fall, Spring)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. The student will

increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4854C - Reading Field Experience

2 Credit Hours (Fall, Spring)

This course provides application of knowledge of reading development to reading instruction. Emphasis is placed on increased reading proficiency for struggling students, including students with disabilities and students from diverse populations. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C, RED 4312, RED 4519C, upper division standing with permission of department chair

SCE 3350C - Principles and Methods for Teaching Science K-8

3 Credit Hours (Fall, Spring)

This course provides techniques, methods and materials of instruction for teaching science in grades K-8. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 3081C - TESOL Issues and Practice

3 Credit Hours (Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 4140C - ESOL Methods, Curriculum and Assessment

3 Credit Hours
(Fall, Spring)

This course is designed to build on the candidate's knowledge of applied linguistics and cross cultural communication. Candidates will extend their understanding of the role of language and culture in the classroom. This course will prepare candidates for effective planning, instruction, and assessment of ELLs in the classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): TSL 3081C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

Total Upper Division Credits Required: 60

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Elementary Education (BS) (BSED)
First Year
Fall Semester EDG 3343 - Instructional Strategies 3 Credit Hours EDG 3410C - Classroom Management, School Safety, Law, and Ethics 3 Credit Hours TSL 3081C - TESOL Issues and Practice 3 Credit Hours RED 3309C - Early and Emergent Literacy K-2 3 Credit Hours Total Semester Hours: 12
Spring Semester EDF 3430 - Measurement, Evaluation, and Assessment in Education 3 Credit Hours LAE 4343C - Writing Across the Curriculum 3 Credit Hours TSL 4140C - ESOL Methods, Curriculum and Assessment 3 Credit Hours RED 3511C - Intermediate Literacy 3-6: Reading and Thinking 3 Credit Hours Total Semester Hours: 12
Summer Semester

EDE 4223 - Integrating Art, Music, and Physical Education **3 Credit Hours**

EDF 3214 - Human Development and Learning **3 Credit Hours**

EEX 3070 - Methods of Inclusion and Collaboration **3 Credit Hours**

RED 4312 - Integration of Assessment into Classroom Reading **3 Credit Hours**

Total Semester Hours: 12

Second Year

Fall Semester

EDE 4226C - Integrated Language Arts, Social Science and Literature **3 Credit Hours**

MAE 3350C - Principles and Methods for Teaching Mathematics K-8 **3 Credit Hours**

SCE 3350C - Principles and Methods for Teaching Science K-8 **3 Credit Hours**

RED 4519C - Diagnostic and Instructional Interventions in Reading **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

EDG 4940 - Internship **9 Credit Hours**

EDE 4930C - Professional Elementary Educator **1 Credit Hour**

RED 4854C - Reading Field Experience **2 Credit Hours**

Total Semester Hours: 12

Total Upper Division Program Hours: 60

Bachelor of Science (BS) Degree in Nursing

BS in Nursing Degree

The baccalaureate nursing program at NWF State College is accredited by the Commission on Collegiate Nursing Education, One DuPont Circle, NW, Suite 530, Washington DC 20036, (202) 887-6791. For more information regarding disclosure, please review pages 15-16 of the CCNE Procedures for Accreditation of Baccalaureate and Graduate Degree Nursing Programs (<http://www.aacn.nche.edu/ccne-accreditation/Procedures.pdf>). The program is an R.N. to BSN degree career ladder and is open to applicants who currently hold a valid Registered Nursing license and have completed an ADN or diploma program. The program can be completed in three to four semesters. Program content for the BSN program meets those specified in Florida's A.S. to B.S. Articulation Manual. All theory courses are taught on-line from the NWF State College Niceville Campus and clinical instruction targets the specific needs of Okaloosa and Walton healthcare providers.

Graduation Requirements for the BS in Nursing Degree

Students seeking the Bachelor of Science degree in Nursing (BSN) must meet the following requirements:

- Complete applicable admission requirements for the program. See the Admissions section of the catalog.
- Complete at least 25% of the course work towards the program at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Earn a minimum grade ("C") in all upper division course work.
- Complete A.A. General Education requirements, including all Gordon Rule course requirements with minimum grades ("C").
- Completion of two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination.
- Complete at least 50% of the upper division program course work (not to include portfolio assessment) in residence at NWF State College.
- Complete a minimum of one hundred and twenty (120) college credits applicable toward the BSN degree.
- Satisfy all outstanding obligations to the college.

Bachelor of Science

Nursing (BS)

Admission Program Objective Code BSNG

State CIP Code 1105138012

The baccalaureate Nursing program at Northwest Florida State College is accredited by the Commission on Collegiate Nursing Education (<http://www.ccneaccreditation.org>).

The program is an R.N. to B.S.N. degree career ladder and is open to applicants who currently hold a valid Registered Nursing license and have completed an ADN or diploma program. The program can be completed in three to four semesters. Program content for the B.S.N. program meets those specified in Florida's A.S. to B.S. Articulation Manual. All theory courses are taught on-line from the NWF State College Niceville campus and clinical activities can be completed near the student's residence.

Lower Division Courses

Unless otherwise specified, select courses from each category, see the AA Degree General Education Requirements section of catalog for course listings:

General Education Course Requirements

(To include GE courses that are required B.S.N. Common Prerequisites)

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - General Education Math **3 Credit Hours**

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - General Education Humanities (SATC) **6 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- _____ - General Education Physical Science **4 Credit Hours**

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- _____ - GE Social Science/History/Government **3 Credit Hours**

Total General Education Credits: 36

B.S.N. Common Prerequisite Courses

(Additional Common Prerequisites to those listed above under GE)

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

- ____ CHM, BSC, BCH, PCB, PHY Course (CHM, PHY may be used for GE if 4 hours) **3 Credit Hours**

Total Common Prerequisite Courses: 13

Foreign Language

Credits must be earned in the same foreign language; the requirement may also be satisfied with two years of the same high school foreign language or appropriate score on an approved CLEP examination.

Total Foreign Language Credits: 8

Lower Division Nursing and Other Courses

Generally, these are the NUR courses required in the associate degree nursing program; credits may vary depending on how many additional non-NUR credits are needed to meet associate degree requirements.

Total Lower Division Nursing and Other Courses: 10-44

Total Lower Division Credits: 76

Lower division credits may differ from this number depending on whether or not the student must complete additional prerequisites or foreign language credits.

Upper Division Courses

Core Courses

NUR 3080 - Dimensions of Baccalaureate Nursing Practice

3 Credit Hours
(Fall, Summer)

This course will provide Registered Nurses, who are returning to school to earn a Baccalaureate degree, an opportunity to advance professional practice concepts. As designed, the course engages the student intellectually in an ongoing professional dialogue and journey with peers, colleagues, and instructors that serves to broaden the student's professional development and builds on preexisting knowledge and experiences. The course curriculum is written for adult learners with the characteristics of self-direction, prior experience, applicability to practice, and motivation to meet the challenge to expand their knowledge base and to utilize advanced critical thinking skills.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3955 - Portfolio I

1 Credit Hour
(Fall, Summer)

This course will provide RN to BSN students an opportunity to develop an electronic professional portfolio to express one's professional nursing expertise and proficiency.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3067C - Health Assessment

3 Credit Hours
(Fall, Summer)

This course is designed to develop the student's knowledge for obtaining and recording a systematic, comprehensive health history, psychosocial assessment, and physical examination of the adult. The course involves the synthesis of nursing, biologic, psychologic, and sociocultural knowledge and theories as they apply to the findings obtained in the comprehensive health assessment of clients of various ages. During the fieldwork experience, emphasis will be placed on collection of a database through physical assessment, history taking and interviewing.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3071 - Writing for Success in Nursing

1 Credit Hour
(Fall, Spring, Summer)

This course is designed to develop the student's knowledge for writing at the upper division nursing level. The course includes information regarding use of APA format and scholarly writing resources.

Prerequisite(s): Student must be a Registered Nurse to take this course.

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research

3 Credit Hours
(Fall, Spring)

This course is designed to provide the RN to BSN student with an introduction to the research process and evidence based practice. The purpose of the course is to stimulate interest in nursing research; to enable students to understand and judge the usefulness of scientific findings; and to develop an understanding of how clinical proficiency is combined with experimental proof to produce nursing practices based upon evidence. An on-line teaching method is used with optional workshops available to students.

Prerequisite(s): STA 2023.

NUR 4615C - Family and Community Health

5 Credit Hours
(Fall, Spring)

The Family and Community Health Nursing course is designed to facilitate the conceptualizing of family, population groups, and community as units of care from diverse cultures, ethnic, and social backgrounds. The student is provided a fieldwork opportunity to assess the health needs of selected families and groups in the community setting with selected health promotion, risk reduction, and disease prevention. The nursing process is used to examine multiple influences impacting life-course experiences of families and communities to enhance functioning.

Prerequisite(s): NUR 3067C, NUR 3080, admission to the BSN program and completion of all General Education requirements.

NUR 4827C - Nursing Leadership and Management

5 Credit Hours
(Spring, Summer)

This course provides students with an evidence-based study of leadership, collaboration, and coordination in healthcare settings. Students develop an evidence based paper to deal with key leadership and management issues related to professional goals. Nursing leadership and management fieldwork focuses on the roles and functions of the professional nurse in these roles. Issues associated with healthcare delivery are explored. Fieldwork provides an opportunity to plan, implement and evaluate a change in the practice of nursing.

Prerequisite(s): NUR 3080, NUR 4165, NUR 3067C, NUR 4615C.

NUR 4956 - Portfolio II

1 Credit Hour
(Spring, Summer)

This course will provide students an opportunity to complete and evaluate their electronic professional portfolio to express their professional nursing expertise and proficiency.

Prerequisite(s): NUR 3955, NUR 3080; Pre or Corequisite: NUR 4827C.

- NUR ____ - Upper Division Nursing Elective (See Below) **3 Credit Hours**

NUR 3837 - Health Care Issues

2 Credit Hours
(Fall, Spring)

This course provides a forum for the exploration and evaluation of concerns germane to contemporary nursing. The focus of this course is on the nursing profession and current major issues and problems that concern it. Social forces influencing changes in the nursing profession are analyzed in terms of historical antecedents and their current manifestations. Recently passed, and pending legislature at both the national and state levels is emphasized.

Prerequisite(s): Current RN Licensure.

NUR 4125 - Clinical Pathophysiology

3 Credit Hours
(Fall, Spring)

This course examines in detail the underlying process involved in the development, evolution, manifestations, and complications of common clinical diseases across the life span, and compares normal and abnormal states. The biological bases for therapeutic clinical actions are examined.

Prerequisite(s): NUR 3067C

Total Upper Division Nursing Credits: 30

Upper Division Nursing Electives

NUR 3678 - Nursing Care of Vulnerable Populations

3 Credit Hours
(Offered as needed)

Caring for the vulnerable members of society is a function nurses perform without regard for their own ambitions, personal safety, and financial security. This course is designed to pull together material from different cultures and at risk groups of individuals considered vulnerable populations. Key concepts will be discussed that will provide a basic structure for caring for the vulnerable, the relevance of nursing theories to vulnerable populations, nursing research showing the kinds of phenomena nurses study, and many ideas about learning to work with and advocate for vulnerable individuals.

NUR 3826 - Nursing Ethics

3 Credit Hours
(Offered as needed)

This course provides an in-depth exploration of ethical principles and moral reasoning as the foundation of nursing practice. The ANA Code of Ethics will be used as a framework for examining current issues in healthcare delivery across the age span from reproductive issues to end-of-life care.

Prerequisite(s): Must be an RN or ASN student.

NSP 4275 - Introduction to Critical Care Nursing

3 Credit Hours
(Offered as Needed)

This course examines the needs of the critically ill client. As part of the human experience, the integrity of the individual and family may be disrupted by a critical illness. During such time, the critical care nurse assists the individual and family to restore life processes to a state of dynamic equilibrium. This course emphasizes the involvement through use of scientific rationale and application of the nursing process in providing care to the individual client and family. Critical care concepts and skills for promoting client and family well-being are stressed.

NSP 3640 - Nursing Care of Military and Veteran Populations

3 Credit Hours
(Spring)

This course is designed to identify the unique healthcare needs of military and veteran populations in the United States in order to prepare students and practicing nurses to develop competence in designing nursing interventions within civilian and government agencies in which military members and veterans seek healthcare. In accordance with the ANA's pledge (2012) to raise awareness of the unique conditions and needs of military veterans and their families, this course supports the Joining Forces initiative to further nursing training to include specialized topics such as traumatic brain injury, posttraumatic stress disorder, trauma rehabilitation, and understanding the military and veteran's healthcare delivery system.

SPN 3036 - Spanish for Health Care Providers

3 Credit Hours
(Offered as needed)

Spanish for Health Care Providers is designed for individuals majoring in nursing or working in health-related areas. The course focuses on vocabulary needed for the healthcare workplace, with grammar taught as a task-based practical skill. Students will learn phrases used to complete health assessments which include conducting interviews, filling out forms, writing reports, and reading and understanding medical articles and brochures. Prevalent disease processes will be discussed as well as cultural practices that affect health care, specifically the health care of Spanish-speaking patients. This course does not fulfill any part of the Florida state language requirements.

Portfolio

Credits are awarded after successful completion of the Portfolio I and II courses

Total Portfolio Credits: 14

Total Upper Division Credits: 44

Total Program Credits Required: 120

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Nursing (BS) (BSNG)

First Year
Fall Semester NUR 3955 - Portfolio I 1 Credit Hour NUR 3071 - Writing for Success in Nursing 1 Credit Hour NUR 3080 - Dimensions of Baccalaureate Nursing Practice 3 Credit Hours NUR 3067C - Health Assessment 3 Credit Hours ENC 1102 - English Composition II 3 Credit Hours ¶ Total Semester Hours: 11
Spring Semester NUR 4125 - Clinical Pathophysiology 3 Credit Hours NUR 3837 - Health Care Issues 2 Credit Hours General Education Humanities Course 3 Credit Hours General Education Social Science History/Government Course 3 Credit Hours Total Semester Hours: 11
Summer Semester General Education Physical Science Course (CHM or PHY) 4 Credit Hours STA 2023 - Statistics 3 Credit Hours ♦ Foreign Language I 4 Credit Hours Total Semester Hours: 11
Second Year
Fall Semester NUR 4615C - Family and Community Health 5 Credit Hours NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research 3 Credit Hours Foreign Language II 4 Credit Hours Total Semester Hours: 12
Spring Semester

NUR 4827C - Nursing Leadership and Management **5 Credit Hours**

BSN Nursing Elective **3 Credit Hours**

NUR 4956 - Portfolio II **1 Credit Hour**

Total Semester Hours: 9

Portfolio credits are awarded after successful completion of NUR 4827C and NUR 4956 **14 Credit Hours**

Total Portfolio Credits: 14

Total Upper Division Program Hours: 68

AA Degree

- AA Degree Program Requirements
- AA Degree General Education Requirements
- AA Degree Graduation Requirements
- AA Transfer Majors
- AA Major Fields of Interest
- Transferring to a Four-Year Institution in Florida
- Foreign Language Requirements for Universities
- Student Bill of Rights

Associate in Arts Degree

The Associate in Arts degree is equivalent to the first two years of a bachelor's degree program and is offered for those students planning to transfer to a four-year institution or to remain at NWF State College to complete the last two years of a bachelor's degree program. The AA degree is awarded upon satisfactory completion of 60 credit hours of general education and college credit electives, attainment of the appropriate minimum grade point averages, and completion of all other applicable college graduation requirements, including the Speaking-Across-the-Curriculum and Technology-Across-the-Curriculum requirements. Although the number of credits and specific courses required for a bachelor's degree may vary across upper-division schools, the Florida community colleges and universities enjoy an articulation agreement, which guarantees certain transfer rights for students who complete the AA degree.

A.A. degree students should work closely with an Navigator or faculty advisor to select the appropriate courses to meet their degree goals.

Graduation Requirements for the AA Degree

The A.A. degree curriculum requires the following.

- Complete a minimum of 60 college credits per the following distribution as outlined in the AA Degree General Education Requirements:
 - Complete 36 credit hours of general education courses distributed appropriately across the Communications, Humanities, Social Sciences, Mathematics, Natural Sciences, and General Education Elective categories presented in the AA Degree General Education Requirements section of the catalog for specific courses.
 - Completion of two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination.
 - Complete 24 credit hours of college credit electives. (Students should consult with a counselor or advisor to select the electives most appropriate to their intended baccalaureate program.)
- Meet the Gordon Rule (FAC Rule 6A-10.030) minimum grade and writing requirements:
 - Attain a grade of "C" or higher in each Gordon Rule writing course (any general education course from the Communications or Humanities categories, and those designated as Gordon Rule in the Social Science category) whether credits in such courses are earned at NWF State College or elsewhere.
 - Complete the Gordon Rule writing requirement (students who complete 6 credits each from the Communications and Humanities categories and an additional Gordon Rule Social Science course will satisfy this requirement).

- Attain a grade of "C" or higher in each Gordon Rule Mathematics course (any course from the Mathematics category that is used to meet AA general education requirements), whether credits in such courses are earned at NWF State College or elsewhere.
- Meet the Civic Literacy Competency (FAC Rule 6A-10.02413) . All first-time-in college students beginning in the 2018-19 academic year must demonstrate civic literacy competency prior to graduation either through successful completion (with a grade of "C" or higher) of POS 1041 or AMH 2020 or by achieving a passing score on an assessment.

Assessment	Standard Score
AP Government and Politics: United States	3
AP United States History	4
CLEP: American Government	50

- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Complete applicable admission requirements for the program. See the Admissions section of the catalog.
- Complete at least 25% of the course work towards the program at NWFSC.
- Satisfy all outstanding obligations to the college.

Transferring to another Four-Year College or University within the State of Florida:

Faculty members, counselors and advisors will gladly assist students in achieving a smooth transfer to other institutions in Florida. Liaison representatives from the respective public institutions in the state are eager to help. Several of the liaisons make regular visits to campus and will meet directly with students to answer questions. The names of the liaisons and dates of upcoming visits are available in the Advising Center in the Student Services Center on the Niceville Campus. In addition, Common Prerequisite Manuals for the Florida State University System are available on RaiderNet or at www.flvc.org.

It is desirable that students transferring to a senior institution plan their program so that common prerequisites can be completed for the upper-division transfer school for their major. It is best for the student to complete the entire two-year degree program prior to transfer, as A.A. graduates who transfer to one of the institutions in the Florida State University System (SUS) enjoy certain protections under the statewide articulation agreement. These rights are presented in the "Student Bill of Rights".

NWF State College offers the necessary prerequisites for most of the State of Florida University Baccalaureate Programs. Students are encouraged to consult a current catalog from the upper-division school where they plan to transfer in addition to meeting with a college advisor or faculty member to acquire an official program plan of study for their intended major.

Special Foreign Language Requirements for Entry into Upper-Level Florida Universities:

Effective August 1, 1990, according to requirements of the Florida Board of Regents, new applicants to any of the state universities must have completed two sequential credits in high school foreign language, a minimum of 6 credit hours in one foreign language at the college level or an appropriate score on an approved CLEP examination. There are two exceptions to this requirement: 1) students who received an A.A. degree prior to September 1, 1989, or 2) students who enrolled in a program leading to an A.A. degree prior to August 1, 1989 and maintained continuous enrollment. Students who are not exempt but fail to satisfy the requirement, may be admitted to the university as part of the 5% admissions exceptions group but will be required to complete eight-ten credit hours in one foreign language as a graduation requirement, regardless of the requirements in the student's major. Students transferring into the Florida SUS without an A.A. degree or fewer than 60 transferable credits must meet this foreign language requirement before going on to the upper division. NWF State College offers the necessary coursework in French, Spanish, Chinese and American Sign Language (ASL) to meet the Florida SUS admission requirements.

Student Bill of Rights

Florida Community College Associate in Arts (AA) Degree graduates are guaranteed rights under the Statewide Articulation Agreement (State Board of Education Rule 6A-10.024).

AA Transfer Majors

AA Transfer Majors indicate the required courses needed to be eligible to be admitted to the university program at the institutions listed. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

The following list indicates the AA transfer majors that can be completed taking courses at NWF State College. It is not a complete list of all university transfer majors. The Common Course Prerequisite Manual lists all university transfer programs available in the State of Florida.

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWF State College recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

AA - Associate in Arts General Degree

Admission Program Objective Code AAGD State CIP Code 1192401010

The AA is primarily intended as a transfer degree for students continuing to a 4 year bachelor's program at a university or state college. The AA Transfer Programs indicate the required courses needed to be eligible to be admitted to the university program at the institutions listed.

Associate in Arts students must complete 60 college credits to complete the degree; 36 of these credits must be general education credits distributed across five subject area categories. A student must satisfy the required number of credits in each category. The remaining 24 elective credits should be selected in consultation with an advisor, who will assist with selecting the college credits most advantageous to the student's educational goals.

General Education

In consultation with an advisor, choose appropriate General Education courses that fulfill your AA Degree Concentration for University Transfer Major. Select courses from each area as listed below; see the AA Degree General Education Requirements section of catalog for specific course listings:

- ____ - Communication Skills **3 Credit Hours**
- ____ - Communication Skills **3 Credit Hours**

- ____ - Core Humanities **3 Credit Hours**
- ____ - General or Core Humanities **3 Credit Hours**
- ____ - Core Mathematics **3 Credit Hours**
- ____ - General or Core Mathematics **3 Credit Hours**
- ____ - Biological Sciences **3 Credit Hours****
- ____ - Physical Sciences **3 Credit Hours****
- ____ - Behavioral Social Sciences **3 Credit Hours*****
- ____ - History/Government Social Sciences **3 Credit Hours*****
- ____ - Additional General Education Credits **6 Credit Hours**

****** One or both of the Biological or Physical Sciences must come from a core group. See AA Degree General Education Requirements for details.

******* One or both of the Social Sciences must come from a core group. See AA Degree General Education Requirements for details.

Total General Education Credits Required: 36

Foreign Language

A minimum of 6 credit hours must be earned in one foreign language at the college level, or successful completion of two sequential credits in high school foreign language, or an appropriate score on an approved CLEP examination.

- ____ - Foreign Language
- ____ - Foreign Language

AA Elective Requirements

In consultation with an advisor, select appropriate AA degree college credit electives that fulfill your AA Degree Concentration for University Transfer Major:

- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**
- ____ - Elective **3 Credit Hours**

Total Elective Credits Required: 24

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

AA General Degree (AA) (AAGD)

First Year

Fall Semester

Core Mathematics - **3 Credit Hours**

ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶

Core Humanities - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

Core or General Mathematics - **3 Credit Hours**

ENC 1102 - English Composition II **3 Credit Hours** ¶

Core or General Humanities - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

Biological Science* - **3 Credit Hours**

Behavioral Social Science** - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

Physical Science* - **3 Credit Hours**

History/Government Social Science** - **3 Credit Hours**

Elective or Additional General Education Hours*** - **3 Credit Hours**

Elective or Additional General Education Hours*** - **3 Credit Hours**

Elective - **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

* At least one Science course must come from the core.

** At least one Social Science course must come from the core.

*** Students who have already satisfied the 36 hour General Education requirement may take a general Elective.

AA Degree Checklist:

- Have you completed a minimum of 60 credit hours in the following areas?
 - 36 Hours of General Education
 - 6 hours in Communications ("C" or better)
 - 6 hours in Mathematics ("C" or better)
 - 6 hours in Humanities ("C" or better)
 - 8 hours in Natural Science
 - 6 hours in Social Sciences ("C" or better in History/Government Social Science category)
 - 4 hours in Additional General Education Credits (if needed)
 - 24 hours of college credit A.A. transferable electives
- Have you completed at least 15 of the 60 credits at NWF State College?
- Have you completed the foreign language requirement?
- Have you met the minimum 2.0 GPA requirements for the A.A.?
- Have you met the Civic Literacy Competency requirement for the A.A.?

AA Transfer Major: Accounting

Admission Program Objective Code: ACCO

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, IRSC, UCF, UF*, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520301

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲ (Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Actuarial Science

Admission Program Objective Code: ACTU
State CIP Code: 1192401010

Offered at FSU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521304
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Advertising

Admission Program Objective Code: ADVE

State CIP Code: 1192401010

Offered at UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090903

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Aerospace Engineering

Admission Program Objective Code: AERO
State CIP Code: 1192401010

Offered at UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: African-American (Black) Studies

Admission Program Objective Code: AFRI
State CIP Code: 1192401010

Offered at FAMU, FSU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Agricultural (Food & Resource) Economics

Admission Program Objective Code: AGRI
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 010103
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Agricultural Engineering

Admission Program Objective Code: AGRE

State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140301

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Agricultural Teacher Education (Vocational)

Admission Program Objective Code: AGTE
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Agriculture Science

Admission Program Objective Code: AGRS

State CIP Code: 1192401010

Offered at UFAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 010000
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: American Studies (USA)

Admission Program Objective Code: AMER
State CIP Code: 1192401010

Offered at FSU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050102

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Anthropology

Admission Program Objective Code: ANTH
State CIP Code: 1192401010

Offered at FAU, FSU, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450201

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Classes

- ANTXXXX - Any course with ANT prefix
- ANTXXXX - Any course with ANT prefix

AA Transfer Major: Applied Physiology and Kinesiology

Admission Program Objective Code: APPK

State CIP Code: 1192401010

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Offered at FSU, UF

Transfer Program CIP code: 260908

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

3 Credit Hours ♦

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the

individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Applied Science

Admission Program Objective Code: APPL
State CIP Code: 1192401010

Offered at FGCU, UCF, USF, USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240102
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Majors Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Architecture - FAMU/NWF Pre-Articulation Agreement

Admission Program Objective Code FAMU
State CIP Code 1192401010

Articulation Agreement with the Florida A&M University (FAMU) School of Architecture:

An articulation agreement between NWF State College and Florida A&M University (FAMU) School of Architecture allows students to earn an Associate in Arts (A.A.) degree that could qualify them for entrance to the upper-division of the Bachelor of Science in Architectural Studies degree program at FAMU. It is highly recommended that, in addition to the common prerequisites listed below, students should consult the current catalog from FAMU. Some SUS programs have restricted access or are considered Limited Access programs. Students are responsible for completing the specific requirements for admissions. For more information on the FAMU A.A. to B.S. articulation, contact Mr. Ray Rickman at 729-5218 or rickmanr@nwfsc.edu.

Associate in Arts Degree/Pre-Architecture FAMU Prerequisites

Please consult the Course Description section of the catalog for the required prerequisites of all courses needed to satisfy the requirements of this program. Students must meet NWFSC A.A. degree graduation requirements.

General Education

Undesignated courses are to be selected from the General Education Requirements listed in the AA Degree General Education Requirements section of catalog for specific courses.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2090 - Contemporary Literature

3 Credit Hours ◆ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

◆ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

Total General Education Credits Required: 36

Program Electives

ARC 1131 - Architectural Presentation

3 Credit Hours
(Summer)

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C - Design 1.1

4 Credit Hours
(Fall)

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C - Design 1.2

4 Credit Hours
(Spring)

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an

articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 1301C.

ARC 2201 - Theory of Architecture

3 Credit Hours

(Fall, Spring)

An introduction to architectural theory, selected contemporary architectural theories and movements, and their evolution and historical basis. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ETD 1102.

ARC 2303A - Design 2.1

6 Credit Hours

(Fall)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 2201.

ARC 2304 - Design 2.2

6 Credit Hours

(Spring)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior.

Prerequisite(s): ARC 2303A.

ARC 2472 - Introduction to the Technology of Architecture

4 Credit Hours

(Summer)

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with

Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501 - Architectural Structures I

3 Credit Hours
(Offered as needed)

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the Technology of Architecture.

Prerequisite(s): any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

Total Program Elective Credits Required: 36

Total Articulation Program Credits Required: 72

AA Transfer Major: Art History & Appreciation

Admission Program Objective Code: ARTA
State CIP Code: 1192401010

Offered at FIU, FSU, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500703
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

or

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

or

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ❖ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- XXXXXXXX - Competency requirement for a single foreign language*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Art Teacher Education

Admission Program Objective Code: ARTT
State CIP Code: 1192401010

Offered at FIU, UCF, UF*, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131302

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours (Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours (Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours (Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: Art, General

Admission Program Objective Code: ART

State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, UCF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing

problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ARHXXX - Any course with ARH prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Asian Studies

Admission Program Objective Code: ASIA

State CIP Code: 1192401010

Offered at FIU, FSU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050103

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Astronomy

Admission Program Objective Code: ASTR

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Athletic Training

Admission Program Objective Code: ATHL
State CIP Code: 1192401010

Offered at FGCU*, FSU*, UCF, UF*, UNF*, USF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510913

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Behavioral Healthcare

Admission Program Objective Code: BEHA

State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440000

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

PSY 2012 - Psychology

3 Credit Hours ♦

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- STAXXXX - Any course with the STA prefix

SYG 2000 - Sociology

3 Credit Hours ♦ ♦

(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶

(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biochemistry

Admission Program Objective Code: BICY

State CIP Code: 1192401010

Offered at FGCU, FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260202

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours

(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.
or

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical

science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.
or

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences - Interdisciplinary Natural Sciences

Admission Program Objective Code: BIOP
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 16/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Chemistry

Admission Program Objective Code: BICH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 1/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Program Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of

ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Computer Science

Admission Program Objective Code: BICO

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 2/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the

concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours

(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours

(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Earth Science

Admission Program Objective Code: BIEA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 3/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours

(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health

profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Mathematics

Admission Program Objective Code: BIMA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 4/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and

incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours

(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Biology & Physics

Admission Program Objective Code: BIPH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 5/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of

ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Computer Science

Admission Program Objective Code: CHCO
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 6/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Earth Science

Admission Program Objective Code: CHEA

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 7/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Program Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Mathematics

Admission Program Objective Code: CHMA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 8/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Chemistry & Physics

Admission Program Objective Code: CHPY

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 9/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer & Earth Sciences

Admission Program Objective Code: CMEA
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 10/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer Science & Math

Admission Program Objective Code: CMMA

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 11/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric

substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦ (Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Computer Science & Physics

Admission Program Objective Code: CMPH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 12/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours

(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Earth Science & Mathematics

Admission Program Objective Code: EAMA

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 13/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Earth Science & Physics

Admission Program Objective Code: EAPH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 14/16
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦ (Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological & Physical Sciences Interdisciplinary Studies - Mathematics & Physics

Admission Program Objective Code: MAPH

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300101, track 15/16

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biological/Biosystems Engineering

Admission Program Objective Code: BIBI
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 144501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Biology, General

Admission Program Objective Code: BIOL
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, IRSC, MDC, SPC, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260101, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite

sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biology, General - FSU - Teach

Admission Program Objective Code: BIOF
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular

growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic

compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
 - SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biomedical Sciences

Admission Program Objective Code: BIMD
State CIP Code: 1192401010

Offered at FSCJ, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260102
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory

components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Biomedical/Bioengineering

Admission Program Objective Code: BIEN
State CIP Code: 1192401010

Offered at FIU, FGCU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Biotechnology

Admission Program Objective Code: BITC
State CIP Code: 1192401010

Offered at FGSU, SFC, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 261201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Botany, General

Admission Program Objective Code: BOTA

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the

concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

AA Transfer Major: Business Administration

Admission Program Objective Code: BUSA
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows

operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics

include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Business Administration & Management

Admission Program Objective Code: BUSM

State CIP Code: 1192401010

Offered at CC, FAMU, FAU, FGCU, FIU*, FSCJ, FSU*, IRSC, SPC, UCF, UF, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520201

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be

emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Managerial Economics

Admission Program Objective Code: BMET
State CIP Code: 1192401010

Offered at UCF, UNF, USF*, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520601

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

**3 Credit Hours
(Spring)**

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Marketing Management

Admission Program Objective Code: BMKT
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU*, FSU*, UCF, UF*, UNF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521401

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

**3 Credit Hours
(Spring)**

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Business Teacher Education/Business Technology Education

Admission Program Objective Code: BTEA

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131303

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

- XXXXXXX - Elective in Business Administration*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Business, General

Admission Program Objective Code: BUTN

State CIP Code: 1192401010

Offered at FSU*, UCF, USF*, USFSM*, USFSP*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics

include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Cardiopulmonary Science

Admission Program Objective Code: CARD

State CIP Code: 1192401010

Offered at FSWSC, VC*, FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510908

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-

Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

- CGSX060 (required at FAMU only)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Chemical Engineering

Admission Program Objective Code: CHEN
State CIP Code: 1192401010

Offered at FIU, FAMU, FSU, USF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Chemical Sciences - Chemical Sciences

Admission Program Objective Code: CMSI
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400599, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

AA Transfer Major: Chemical Sciences - FSU Teach

Admission Program Objective Code: CMST

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400599, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions,

applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 2210C - Organic Chemistry I

4 Credit Hours (Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours (Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Chemistry

Admission Program Objective Code: CHEM

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400501, track 1/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

**Required for Bachelor in Science degree.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

*** May be used for Bachelor in Arts degree only.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Chemistry Teacher Education

Admission Program Objective Code: CHTE

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400501, track 2/3

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

**Required for Bachelor in Science degree.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

*** May be used for Bachelor in Arts degree only.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Civil Engineering

Admission Program Objective Code: CIVI

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FSU, UCF, UNF, FIU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical

science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Communication and Media Studies

Admission Program Objective Code: COMS
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090199
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- 18 hours beyond the 36 hours of general education requirements. Cannot include ENC or LIT prefixes*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Communications (Mass), Media Studies or Converged Communications

Admission Program Objective Code: COMM
State CIP Code: 1192401010

Offered at FGCU, FSCJ, UCF, UNF, USFSP, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090102

* See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- 18 hours beyond the 36 hours of general education requirements. Cannot include ENC or LIT prefixes*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Community Health

Admission Program Objective Code: COMH
State CIP Code: 1192401010

Offered at FGCU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512208

* See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Community Health Liaison

Admission Program Objective Code: CMHL
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 511504
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

♦ ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

- STAXXXX - Any course with the STA prefix

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

AA Transfer Major: Computational Biology

Admission Program Objective Code: BICP
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 261104
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas,

volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Transfer Major Physical Sciences Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Computational Science

Admission Program Objective Code: CMPT
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 303001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours (Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030 , COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

- BSCXXXXC - Any lab course with the BSC prefix
or
- CHMXXXXC - Any lab course with the CHM prefix
or
- GLYXXXXC - Any lab course with the GLY prefix
or
- METXXXXC - Any lab course with the MET prefix
or
- PHYXXXXC - Any lab course with the PHY prefix
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Computer Science

Admission Program Objective Code: CMIN

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 1/6

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030 , COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- Choose two science courses for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

*See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Computer Science (FSU only)

Admission Program Objective Code: CFSU

State CIP Code: 1192401010

Offered at FSU*

Transfer Program CIP code: 110101, track 2/6

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)
- A science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Information Science (UNF only)

Admission Program Objective Code: CUNF
State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 4/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business

applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science - Information Technology

Admission Program Objective Code: CIIT
State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 5/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

- An introductory object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SPCXXXX - Any course with the SPC prefix

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer & Information Science- Information Systems

Admission Program Objective Code: CIS

State CIP Code: 1192401010

Offered at FAMU, UF, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 3/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - High level programming language course*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

or

ACG 2021 - Financial Accounting

3 Credit Hours
(Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours ♦**, equivalent, or higher

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours

(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Criminology

Admission Program Objective Code: CMCR

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430116

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- COP2XXX - Any computer programming course*

MAC 1105 - College Algebra

3 Credit Hours ♦

(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

AA Transfer Major: Computer Engineering - Computer & Information Engineering

Admission Program Objective Code: CMPE
State CIP Code: 1192401010

Offered at FAMU, FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140901, track 2/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- COPXXXX - Introductory programming in Ada, C, C++, Pascal or equivalent language* (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Engineering - Computer Engineering

Admission Program Objective Code: CMEN
State CIP Code: 1192401010

Offered at FAMU, UF, FAU, FIU, FSU, UCF, USF*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140901, track 1/3

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAP 2302 - Differential Equations

3 Credit Hours

(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours

(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Networking (BAS)

Admission Program Objective Code: CNET

State CIP Code: 1192401010

Offered at FSCJ

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110901

*See notes in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Computer Science - BA in Computer Science (Track 6/6) (FSU)

Admission Program Objective Code: CMSC

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110101, track 6/6

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Computer Software & Media Applications

Admission Program Objective Code: CSFM
State CIP Code: 1192401010

Offered at FGCU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110899, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)
- A science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Construction Engineering

Admission Program Objective Code: CONS

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 140803

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Criminal Justice Studies

Admission Program Objective Code: CRIM
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, IRSC, PSC, UCF, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430104
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Criminology

Admission Program Objective Code: CRMO
State CIP Code: 1192401010

Offered at UF*, USF, USFSM, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Dental Hygiene (BAS)

Admission Program Objective Code: DEHY

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510602

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Dietetics/Nutritional Services

Admission Program Objective Code: DIET

State CIP Code: 1192401010

Offered at FIU*, FSU, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513101, track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international

issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Dietetics/Nutritional Services - Dietetics

Admission Program Objective Code: DIEN

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours (Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦ (Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Digital Media

Admission Program Objective Code: DGMD
State CIP Code: 1192401010

Offered at FSCJ, GCSC, IRSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 100304
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

Associate in Arts Degree or Associate in Science Degree in Graphics, Design, Digital Media, Information Technology or related fields.

AA Transfer Major: Drama Education

Admission Program Objective Code: DRAM
State CIP Code: 1192401010

Offered at FAMU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500501, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this

course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Economics - Business

Admission Program Objective Code: ECOB

State CIP Code: 1192401010

Offered at FAMU, FAU, UF, UNF, USF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450601, track 2/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above.

AA Transfer Major: Economics - Social Sciences

Admission Program Objective Code: ECON
State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FSU*, UCF, UF, UNF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450601, track 1/2

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Education of Blind & Visually Handicapped

Admission Program Objective Code: EDBL

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131009

*See note on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Education, General

Admission Program Objective Code: EDTR
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 130101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Educational Studies

Admission Program Objective Code: EDST

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 139999

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

NOTE: Completion of this program does not result in educator certification.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Electrical, Electronics Engineering

Admission Program Objective Code: ELEL

State CIP Code: 1192401010

Offered at UF, FAMU, FAU, FSU, UCF, UNF, USF, FIU, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141001, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Electronic Engineering Technology - Electrical & Computer Engineering Technology

Admission Program Objective Code: ELEC

State CIP Code: 1192401010

Offered at FAMU, VC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 150303

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric

substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Elementary Teacher Education

Admission Program Objective Code: ELED
State CIP Code: 1192401010

Offered at CC, DSC, FAMU, FGCU, FSU*, FSWSC, NWFSC, PSC, SFSC, UCF, UF*, USF, USFSM, USFSP, UWF, FIU, FAU, SPC, IRSC, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131202

*See Notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Energy Technology Management (BAS)

Admission Program Objective Code: ENRG
State CIP Code: 1192401010

Offered at SCFMS

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 150503
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours (Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements

for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Engineering Technology

Admission Program Objective Code: ENGN

State CIP Code: 1192401010

Offered at DSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 159999
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

COP 2220 - Programming in C

**3 Credit Hours
(Spring)**

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

AA Transfer Major: English Language and Literature

Admission Program Objective Code: ENLI

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF*, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 230101

* See Note on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ENC 1101 - English Composition I

**3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)**

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: English Teacher Education

Admission Program Objective Code: ENTE
State CIP Code: 1192401010

Offered at CC, FAU, FSU, FSWSC, UCF, USF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131305
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- LITXXXX - Any course with the LIT prefix
- or
- AMLXXXX - Any course with the AML prefix
- or

- ENLXXXX - Any course with the ENL prefix

AA Transfer Major: Entomology

Admission Program Objective Code: ENTM

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260702

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Entrepreneurship

Admission Program Objective Code: ENTR

State CIP Code: 1192401010

Offered at USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520701

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Environmental Health Engineering

Admission Program Objective Code: ENVR
State CIP Code: 1192401010

Offered at FIU, FGCU, UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Environmental Science

Admission Program Objective Code: ENVS

State CIP Code: 1192401010

Offered at FSU (BA only), UF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030104, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.
or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate

placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

or

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Environmental Science - Geography/Environmental Management

Admission Program Objective Code: ENVG
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 130104, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (FAU, UNF)

Admission Program Objective Code: EXFA
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310505, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general

chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (FGCU only)

Admission Program Objective Code: EXFG
State CIP Code: 1192401010

Offered at FGCU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310505, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Exercise Science (USF only)

Admission Program Objective Code: EXUS
State CIP Code: 1192401010

Offered at USF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131314, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.
or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and

inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Finance, General (BS) or Banking (BAS)

Admission Program Objective Code: FINB
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU*, UCF, UF, UNF, USF*, USFSM*, USFSP*, UWF, SPC (BAS)

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520801

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial

records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the

activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

**3 Credit Hours
(Fall, Spring, Summer)**

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

**3 Credit Hours ♦
(Fall, Spring, Summer)**

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences,

correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Financial Services

Admission Program Objective Code: FINS

State CIP Code: 1192401010

Offered at UNF, FSCJ

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520803

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Fire and Emergency Services

Admission Program Objective Code: FRES
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430203
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Fire Science Management (BAS)

Admission Program Objective Code: FIR1
State CIP Code: 1192401010

Offered at FSCJ
Transfer Program CIP code: 430202

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Food Science & Technology - Dietetics

Admission Program Objective Code: FSTD
State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 011001, track 2/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Food Science & Technology - Food Science

Admission Program Objective Code: FOOD
State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 011001, track 1/2

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Foreign Language, Multiple

Admission Program Objective Code: FORG

State CIP Code: 1192401010

Offered at UCF, USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.*

*See Notes on Common Course Prerequisite Manual

AA Transfer Major: Forensic Science

Admission Program Objective Code: FORE

State CIP Code: 1192401010

Offered at FGCU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430106
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic

acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Forest Resources & Conservation - Wildlife Ecology & Conservation

Admission Program Objective Code: FORW

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030501, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: General Studies

Admission Program Objective Code: GENS

State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240106
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geology

Admission Program Objective Code: GEOT

State CIP Code: 1192401010

Offered at FAU, FIU, FSU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer

institution to confirm program requirements.

Transfer Program CIP code: 400601, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours

(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦

(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2100C - Principles of Geology II

4 Credit Hours

(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and

climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geology - Earth Science Teacher Education

Admission Program Objective Code: GEEA

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400601
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Geomatics Engineering

Admission Program Objective Code: GEOE
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 143801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is

recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Geoscience - FSU Teach

Admission Program Objective Code: GEOS
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141401, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Gerontology

Admission Program Objective Code: GERO
State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 301101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Graphic Design

Admission Program Objective Code: GRPH
State CIP Code: 1192401010

Offered at FAMU, FSU*, UF*, USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500409
*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment in studio art classes is permitted on a space-available basis only.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- GRAXXXX - Any course with the GRA prefix

AA Transfer Major: Health and Physical Education, General - Exercise Science

Admission Program Objective Code: HPEE
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course

Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 3/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

or

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health and Physical Education, General - Health, Leisure, and Fitness Studies

Admission Program Objective Code: HPEH
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 4/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Health and Physical Education, General - Physical Education

Admission Program Objective Code: HPEP
State CIP Code: 1192401010

Offered at FAMU, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310501, track 2/4
* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- 4 Credit hours in Skill Development Courses in Physical Activities
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Information Management

Admission Program Objective Code: HEIM
State CIP Code: 1192401010

Offered at FAMU, UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510706

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours (Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- CGSXXXX - Any course with the CGS prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science (Track 5/7) (SSCF, FGCU)

Admission Program Objective Code: HESC
State CIP Code: 1192401010

Offered at FGCU, SSCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 5/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Community Health (Track 6/7) (UNF)

Admission Program Objective Code: HUNF
State CIP Code: 1192401010

Offered at UNF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 6/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- STAXXXX - Any course with the STA prefix
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Concentration in Physician Assistant Studies (Track 2/7) (MDC)

Admission Program Objective Code: HMDC
State CIP Code: 1192401010

Offered at MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 2/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Pre-Clinical/Pre-Physical Therapy (Track 3/7) (FAMU, UCF)

Admission Program Objective Code: HSPC
State CIP Code: 1192401010

Offered at FAMU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, track 3/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Services Administration

Admission Program Objective Code: HLSR

State CIP Code: 1192401010

Offered at SFC, FAMU, FAU, FGCU, FIU, IRSC, SCFMS, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510701

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the

economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲ (Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Health Services Administration (BAS)

Admission Program Objective Code: HSAD
State CIP Code: 1192401010

Offered at EFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512211
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Health Teacher Education (FSU)

Admission Program Objective Code: HTED
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131307
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

HSC 1100 - Health Education

**3 Credit Hours
(Spring)**

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BSC 1085C - Anatomy and Physiology I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

HUN 2201 - Nutrition

**3 Credit Hours
(Fall, Spring, Summer)**

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: History

Admission Program Objective Code: HIST
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 540101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- AMHXXXX - Any course with the AMH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- WOHXXXX - Any course with the WOH prefix

- AMHXXXX - Any course with the AMH prefix
or
- EUHXXXX - Any course with the EUH prefix
or
- WOHXXXX - Any course with the WOH prefix

AA Transfer Major: Honors College (FAU)

Admission Program Objective Code: HONB

State CIP Code: 1192401010

Offered at FAU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240199, track 2/2

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Honors College (NCF)

Admission Program Objective Code: HONA

State CIP Code: 1192401010

Offered at NCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240199, track 1/2

*See note in Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (FAU, FSU, UWF)

Admission Program Objective Code: HAMB
State CIP Code: 1192401010

Offered at FAU, FSU*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 2/4

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2021 - Financial Accounting

3 Credit Hours (Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours ♦**, equivalent, or higher
or

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the

economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

**3 Credit Hours ▲
(Fall, Spring)**

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

**3 Credit Hours
(Fall, Spring)**

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours

(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (FIU)

Admission Program Objective Code: HAMD

State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 4/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (Track 1/4) (FIU, FSU, UCF)

Admission Program Objective Code: HAMA

State CIP Code: 1192401010

Offered at FIU, FSU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 1/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Hospitality Administration/Management (USFSM)

Admission Program Objective Code: HAMC
State CIP Code: 1192401010

Offered at USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520901, track 3/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be

emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Human Resource Management

Admission Program Objective Code: HRMG
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows

operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours

(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours

(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business

applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Human Services

Admission Program Objective Code: HUSR

Offered at FSCJ, IRSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440000, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Humanities

Admission Program Objective Code: HUMA
State CIP Code: 1192401010

Offered at FSU, UCF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240103
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Industrial & Systems Engineering

Admission Program Objective Code: INSY
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 142701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general

chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Industrial/Manufacturing Engineering

Admission Program Objective Code: INDS
State CIP Code: 1192401010

Offered at FAMU, FSU, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 143501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Information Sciences and Studies - Computer Information Systems EN EIF

Admission Program Objective Code: INSC

State CIP Code: 1192401010

Offered at EFSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110401

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - Introductory programming in C, C++, Java or equivalent language. * (COP 2010, COP 2030, COP 2176, COP 2220, COP 2224, COP 2360, COP 2654, COP 2660, COP 2700, COP 2702, COP 2800)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body

dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See notes on Common Course Prerequisite Manual

AA Transfer Major: Information Technology (BC, FAMU, FIU, FSU, USF, UWF)

Admission Program Objective Code: INTB

State CIP Code: 1192401010

Offered at BC, FAMU, FIU, FSU, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110103, track 2/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

PSY 2012 - Psychology

3 Credit Hours ♦

(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours

(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶

(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ECO 2013 - Economics I

3 Credit Hours ◆

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- CGSXXXX - Any database course* (CGS 2541 ,CGS 2544)*
 - COPXXXX - Any computer programming course*
 - COPXXXX - COPXXXX - Any object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)
 - MACXXXX Pre-Calculus course or Discrete Math
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Information Technology (UCF, USFSM, DSC)

Admission Program Objective Code: INTA

State CIP Code: 1192401010

Offered at UCF, USF, USFSM, DSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 110103, track 1/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- PSYXXXX - Any course with the PSY prefix

STA 2023 - Statistics

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

- CGSXXXX - Any database course* (CGS 2541 ,CGS 2544)
- COP2XXX - Any computer programming course*
- PHYXXXX - Any course with the PHY prefix
- COPXXXX - Any object-oriented computer programming course* (COP 2224, COP 2228, COP 2360, COP 2362, COP 2654, COP 2658, COP 2660, COP 2662, COP 2800, COP 2805, COP 2833)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Insurance

Admission Program Objective Code: INSU
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521701

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲

(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows

operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours

(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours

(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business

applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Interdisciplinary Studies

Admission Program Objective Code: INTE
State CIP Code: 1192401010

Offered at UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 309999

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general

chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and

properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Interior Design (BAS)

Admission Program Objective Code: INDE
State CIP Code: 1192401010

Offered at SSCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500408, track 3/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International /Global Studies

Admission Program Objective Code: INTG
State CIP Code: 1192401010

Offered at UCF, UF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 302001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International Business Management

Admission Program Objective Code: INTN
State CIP Code: 1192401010

Offered at FAU, FIU, FSU*, SCFMS, SPC, USF*, USFSP*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: International Relations

Admission Program Objective Code: INTR

State CIP Code: 1192401010

Offered at FIU, FSU, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450901
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jewish Studies

Admission Program Objective Code: JWST

State CIP Code: 1192401010

Offered at FAU, FU
Transfer Program CIP code: 380206
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Journalism

Admission Program Objective Code: JOUR

State CIP Code: 1192401010

Offered at UCF*, FAMU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade English/Middle Grade Social Science Ed

Admission Program Objective Code: MTES
State CIP Code: 1192401010

Offered at UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 2/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- AMLXXXX - Any course with the AML prefix*
- or
- LITXXXX - Any course with the LIT prefix
- or
- ENCXXXX - Any course with the ENC prefix
- or
- ENLXXXX - Any course with the ENL prefix
- AND**
- AMHXXXX - Any course with the AMH prefix
- or
- WOHXXXX - Any course with the WOH prefix
- or
- EUHXXXX - Any course with the EUH prefix
- or
- POSXXXX - Any course with the POS prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade English/Middle Grade Special Ed

Admission Program Objective Code: MTSP
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 7/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- AMLXXXX - Any course with the AML prefix*
- or
- LITXXXX - Any course with the LIT prefix
- or
- ENCXXXX - Any course with the ENC prefix
- or
- ENLXXXX - Any course with the ENL prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade English Ed

Admission Program Objective Code: MTEN

State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 3/7

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.
and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours

(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

- AMLXXXX - Any course with the AML prefix
 - or
 - LITXXXX - Any course with the LIT prefix
 - or
 - ENCXXXX - Any course with the ENC prefix
 - or
 - ENLXXXX - Any course with the ENL prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade Science Ed

Admission Program Objective Code: MTMS

State CIP Code: 1192401010

Offered at NWFSC, UNF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 1/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically

about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- GLYXXXXC - Any course with the GLY prefix that includes a lab

or

- METXXXXC - Any course with the MET prefix that includes a lab

or

- OCEXXXXC - Any course with the OCE prefix that includes a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Math/Middle Grade Social Science Ed

Admission Program Objective Code: MTSS
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 4/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.
and

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

- AMHXXX - Any course with the AMH prefix
 - or
 - WOHXXX - Any course with the WOH prefix
 - or
 - EUHXXX - Any course with the EUH prefix
 - or
 - POSXXX - Any course with the POS prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Science/Middle Grade English Ed

Admission Program Objective Code: MTSE
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 5/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ESC 1000 - Earth Science

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- GLYXXXXC - Any course with the GLY prefix that includes a lab

or

- METXXXXC - Any course with the MET prefix that includes a lab

or

- OCEXXXXC - Any course with the OCE prefix that includes a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦

(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and

incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- AMLXXXX - Any course with the AML prefix*
 - or
 - LITXXXX - Any course with the LIT prefix
 - or
 - ENCXXXX - Any course with the ENC prefix
 - or
 - ENLXXXX - Any course with the ENL prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Jr. High/Middle School Teacher Ed - Middle Grade Science/Middle Grade Social Science Ed

Admission Program Objective Code: MTSC
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131203, track 6/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- GLYXXXXC - Any course with the GLY prefix and a lab

or

- METXXXXC - Any course with the MET prefix and a lab

or

- OCEXXXXC - Any course with the OCE prefix and a lab

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- AMHXXX - Any course with the AMH prefix
or
- WOHXXX - Any course with the WOH prefix
or
- EUHXXX - Any course with the EUH prefix
or
- POSXXX - Any course with the POS prefix
* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Latin American Studies (FSU)

**Admission Program Objective Code: LATA
State CIP Code: 1192401010**

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050134
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Latin American Studies (UCF)

Admission Program Objective Code: LAAS

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050107

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Legal Assisting

Admission Program Objective Code: LEGA

State CIP Code: 1192401010

Offered at UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220302

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Legal Studies, General (UCF)

Admission Program Objective Code: LEGL

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220000

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- No specific courses are required

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Liberal Arts & Sciences

Admission Program Objective Code: LIAS

State CIP Code: 1192401010

Offered at FAU, FIU, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 240101

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Linguistics

Admission Program Objective Code: LING
State CIP Code: 1192401010

Offered at FAU, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160102
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- XXXXXXX - Demonstrated competency by testing or completion of a foreign language through the intermediate level (SPN 2220 - Spanish III or ASL 2160 - American Sign Language III at NWFSC)*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management and Supervision (BAS - NWF)

Admission Program Objective Code: SVMG
State CIP Code: 1192401010

Offered at BCC, BC, CC, CCF, DSC, FSWFC, FSCJ, GCSC, IRSC, LSSC, MDC, NWFSC, PBSC, PESC, PSC, SFC, SFSC, SJRSC, SPC
(Also see Supervision and Management)

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520299
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management Info Systems - Business/Data Processing/Business Information Mgt

Admission Program Objective Code: MGIN
State CIP Code: 1192401010

Offered at FAU, FGCU, FSU*, SSCF, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521201

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

**3 Credit Hours
(Fall)**

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

**3 Credit Hours
(Spring)**

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

**3 Credit Hours
(Spring)**

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours (Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

or

MAC 2311 - Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Management Science

Admission Program Objective Code: MGNT
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Marine/Aquatic Biology

Admission Program Objective Code: MARI
State CIP Code: 1192401010

Offered at FIU, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 261302
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours

(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Marketing, Other - Advertising

Admission Program Objective Code: MARO
State CIP Code: 1192401010

Offered at USF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521499

*See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲

(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows

operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours

(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours

(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours

(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business

applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Materials Engineering

Admission Program Objective Code: MATE
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141801
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems,

mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Mathematics General - Mathematics General

Admission Program Objective Code: MATH

State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 1/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (Please check with your transfer institution for the appropriate course)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics Teacher Education - Jr. High/Middle School Mathematics Ed (NWF)

Admission Program Objective Code: MATN
State CIP Code: 1192401010

Offered at BC, CC, FSWSC, IRSC, NWFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131311, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- MACXXXX - Any course with the MAC prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics Teacher Education - Secondary Mathematics Education

Admission Program Objective Code: MATR
State CIP Code: 1192401010

Offered at BC, CC, DSC, FAU, FSWSC, IRSC, UNF, USF, SPC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131311, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours

(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

- MACXXXX - Any course with the MAC prefix
 - or
 - MTGXXXX - Any course with the MTG prefix
 - or
 - MASXXXX - Any course with the MAS prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics, General - FSU - Teach

Admission Program Objective Code: MFSU

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 3/4

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦

(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours (Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mathematics, General - Mathematics Teacher Education

Admission Program Objective Code: MFIU
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270101, track 4/4
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

- A laboratory based science course for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Mechanical Engineering

Admission Program Objective Code: MECH

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FPU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141901

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems,

mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Medical Technology/Clinical Laboratory Sciences

Admission Program Objective Code: MEDC
State CIP Code: 1192401010

Offered at USF, SFC, FGCU, UCF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 511005

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general

chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Meteorology - Meteorology

Admission Program Objective Code: METE
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400401, track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Microbiology/Bacteriology

Admission Program Objective Code: MCBA
State CIP Code: 1192401010

Offered at UCF, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260503
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied

point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.
or

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Middle Eastern Studies

Admission Program Objective Code: MIDE
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050108

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Motion Picture & Television Technology

Admission Program Objective Code: MOTP

State CIP Code: 1192401010

Offered at FSU*, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500602, track 1/2

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Multi-/Interdisciplinary Studies

Admission Program Objective Code: MULT

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 300000

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Music Composition (FSU)

Admission Program Objective Code: MUCO

State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500904

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

**3 Credit Hours
(Fall)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

**3 Credit Hours
(Spring)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix **4 Credit Hours**
- MV(K/S/V) XX1X (Applied Music course) **2-4 Credit Hours**
- MV(K/S/V) XX2X (Applied Music course) **2-4 Credit Hours**
- XXXXXXX
- Secondary Piano Proficiency (exam)

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music Performance (FGCU, FSU, UCF, UNF, USF, UWF)

Admission Program Objective Code: PERF

State CIP Code: 1192401010

Offered at FGCU*, FSU*, UCF, UNF*, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500903

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours (Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours (Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours (Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours (Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

1 Credit Hour
(Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music Studies (USF)

Admission Program Objective Code: MSTU

State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 509999

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours

(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours

(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of

analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music, General (FAMU, FAU, FSU*, UF*, FIU*) (Track 1/2)

Admission Program Objective Code: PERF
State CIP Code: 1192401010

Offered at FAMU, FAU, FSU*, UF*, FIU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500901
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nonprofit Management (UCF)

Admission Program Objective Code: NPRO

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520206

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nuclear Engineering

Admission Program Objective Code: NUCL

State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 142301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic

graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical

science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Nursing (Track 1/2)

Admission Program Objective Code: NRSN
State CIP Code: 1192401010

Offered at FAMU*, FAU*, FGCU*, FIU*, FSU*, UCF*, UF*, UNF*, USF*, UWF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513801, Track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- BSCXXXX - Any course with the BSC prefix
or
- CHMXXXX - Any course with the CHM prefix
or
- PHYXXXX - Any course with the PHY prefix

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- SYGXXXX - Any course with the SYG prefix

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Nursing - AS to BS (NWF)

Admission Program Objective Code: NUR1

State CIP Code: 1192401010

Offered at BC, CC, CCF, DSC*, FAMU*, FAU*, FSCJ, FSWSC, GCSC, NWFSC, PBSC, PESC, PHSC, PSC, SCFMS, SFC, SFSC, IRSC, SPC, SJRSC, TCC, FGCU*, FIU*, FSU*, FGC, MDC, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 513801, track 2/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

- BSCXXXX - Any course with the BSC prefix
or
- CHMXXXX - Any course with the CHM prefix
or
- PHYXXXX - Any course with the PHY prefix

DEP 2004 - Human Growth and Development

3 Credit Hours

(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

- SYGXXXX - Any course with the SYG prefix

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Paralegal Studies (BAS)

Admission Program Objective Code: PLAA
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 220302, 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Parks & Recreation Management

Admission Program Objective Code: PRKF
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 6/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

AA Transfer Major: Parks & Recreation Management - Hospitality, Recreation & Resort Management

Admission Program Objective Code: PRKH
State CIP Code: 1192401010

Offered at UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 5/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Parks & Recreation Management - Instruction

Admission Program Objective Code: PKRE
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer

institution to confirm program requirements.

Transfer Program CIP code: 310301, track 1/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Parks & Recreation Management - Recreation and Tourism

Admission Program Objective Code: PRKT
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 3/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the

individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Parks & Recreation Management - Recreation, Tourism & Events

Admission Program Objective Code: PRKR
State CIP Code: 1192401010

Offered at FSU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310301, track 2/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

AA Transfer Major: Pharmaceutical Science

Admission Program Objective Code: PHAR
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512099
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-

chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate

system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Pharmacy (Pharm D)

Admission Program Objective Code: PHAD
State CIP Code: 1192401010

Offered at FAMU*, UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512001

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.
or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Philosophy

Admission Program Objective Code: PHIL
State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 380101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Philosophy and Religion

Admission Program Objective Code: PHRL
State CIP Code: 1192401010

Offered at FAMU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 389999
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Photonics Science and Engineering

Admission Program Objective Code: PHEN

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 141003

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours (Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physical Education Teacher Education

Admission Program Objective Code: PHED
State CIP Code: 1192401010

Offered at FIU, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131314
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

or

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

- PELXXXX - 4-5 credit hours of courses with the PEL prefix
- PEMXXXX - 3 hours of courses with the PEM prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physical Science

Admission Program Objective Code: PHSC
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400899, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Physical Science - FSU Teach

Admission Program Objective Code: PHYT

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400899, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

- SMTX043 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
 - SMTX053 - Not offered at NWFSC but can be taken at transfer institution when admitted to upper division.*
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Physics

Admission Program Objective Code: PHYS
State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400801, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite

sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Physics Teacher Education

Admission Program Objective Code: PHTE
State CIP Code: 1192401010

Offered at FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 400801, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus,

area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours (Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

AA Transfer Major: Political Science & Government

Admission Program Objective Code: POTL
State CIP Code: 1192401010

Offered at FAU, UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω (Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Pre-Elementary/Early Childhood Teacher Ed - Age 3 through Grade 3

Admission Program Objective Code: ECHA

State CIP Code: 1192401010

Offered at CCF, FGC, FGCU, FSCJ, FSU*, MDC, NWFSC, PSC, SCFMS, SFC, SJRSC, UCF, UNF, UWF, SPC, USF, USFSM, FIU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131210

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Professional Communication

Admission Program Objective Code: PRCO

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090900
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Project Management (BAS - NWF)

Admission Program Objective Code: PROJ
State CIP Code: 1192401010

Offered at NWFSC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520202
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Psychobiology

Admission Program Objective Code: PSYB
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 422706
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.
or

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Psychology, General

Admission Program Objective Code: PSCH
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, UCF, UF*, UNF, USF, USFSM, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 420101

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- One of the following Biology courses: BSC 1005, BSC 1010C, BSC 1011C, BSC 1080, BSC 1085C, BSC 1086C, BSC 2020C
- or

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- One of the following Psychology courses: CLP 1001, CLP 2140, DEP 2004, DEP 2100

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Health (FGCU, USF)

Admission Program Objective Code: PUBH
State CIP Code: 1192401010

Offered at FGCU, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is

an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Policy and Administration

Admission Program Objective Code: PUBP

State CIP Code: 1192401010

Offered at FAMU, FAU, FIU, IRSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440401
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Relations & Organizational Communication

Admission Program Objective Code: PUBC
State CIP Code: 1192401010

Offered at FAMU*, UF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090902

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in

preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSY 2012 - Psychology

3 Credit Hours ◆
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

3 Credit Hours ◆
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Safety and Security

Admission Program Objective Code: PUBC
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 430107
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Public Safety Mgt (BAS) or Public Admin (BAS) or Public Safety/Homeland Security

Admission Program Objective Code: PBHL

State CIP Code: 1192401010

Offered at FAU, FSCJ, FSWSC, MDC, SCFMS, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 439999

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Radio & TV Broadcasting

Admission Program Objective Code: RADO

State CIP Code: 1192401010

Offered at UCF*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 090701

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Radiologic and Imaging Science

Admission Program Objective Code: RDTTC

State CIP Code: 1192401010

Offered at VC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510907

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MAC 1105 - College Algebra

3 Credit Hours ♦

(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours (Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

*To be admitted, a student must have current American Registry of Radiologic Technologists (ARRT) certification.**

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Real Estate

Admission Program Objective Code: REAL
State CIP Code: 1192401010

Offered at FAU, FIU, FSU*, UCF, UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 521501

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets,

liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Religious Studies

Admission Program Objective Code: RELG
State CIP Code: 1192401010

Offered at FIU, FSU, UCF, UF, UNF, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 380201
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Resort & Hospitality Management

Admission Program Objective Code: RSHO
State CIP Code: 1192401010

Offered at FGCU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520906
* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Restaurant and Food Service Management

Admission Program Objective Code: REST

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520905

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Rhetorical Speech & Communication

Admission Program Objective Code: RHET

State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 231304

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPC 1608 - Public Speaking

**3 Credit Hours †
(Fall, Spring, Summer)**

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Russian & East European Studies

Admission Program Objective Code: RUSS

State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050105

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Biology Teacher Ed (BC, CC, DSC, FSWSC, IRSC, NWFSC, SPC, MDC)

Admission Program Objective Code: SCIB

State CIP Code: 1192401010

Offered at BC, CC, DSC, FSWSC, IRSC, NWFSC, SPC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131322

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Any two of the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Biology Teacher Education (FAMU, FAU, UCF, UNF, USF)

Admission Program Objective Code: STEB
State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 1/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

Choose any two of the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Chemistry Teacher Education (DSC, MDC)

Admission Program Objective Code: SCIC
State CIP Code: 1192401010

Offered at DSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131323
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦ (Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Chemistry Teacher Education (FAMU, FAU, UCF, UNF, USF)

Admission Program Objective Code: STEC
State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 2/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to

have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Earth/Space Teacher Education

Admission Program Objective Code: STEE

State CIP Code: 1192401010

Offered at DSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 3/5
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical

science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- GLYXXXX OR GLYXXXXC
- OCEXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Middle Grades Science Teacher Education (NWF)

Admission Program Objective Code: MSCI

State CIP Code: 1192401010

Offered at BC, CC, FSWSC, IRSC, NWFSC, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 5/5

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health

profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- GLYXXXX OR GLYXXXXC
- OCEXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Science Teacher Education - Physics Teacher Education

Admission Program Objective Code: STEP

State CIP Code: 1192401010

Offered at FAU, UCF, UNF, USF

Offered at DSC, MDC - CIP code 131329

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131316, track 4/5

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical

science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Ed - English

Admission Program Objective Code: SETE

State CIP Code: 1192401010

Offered at UCF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 1/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

SPC 1608 - Public Speaking

3 Credit Hours †

(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

- LITXXXX - Any course with the LIT prefix
- or**
- AMLXXXX - Any course with the AML prefix

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.
or

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Ed - Social Science

Admission Program Objective Code: SESS
State CIP Code: 1192401010

Offered at FAMU, UCF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 2/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ◆ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

- ECOXXXX - Any course with the ECO prefix
 - or
 - SOCXXXX - Any course with the SOC prefix
 - or
 - ANTXXXX - Any course with the ANT prefix
 - or
 - PSYXXXX - Any course with the PSY prefix
 - or
 - GEAXXXX - Any course with the GEA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Biology Teacher Education (Track 4/6) (UCF)

Admission Program Objective Code: BTED

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 4/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours (Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

BSC 1010C - Principles of Biology I

4 Credit Hours ♦ (Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours (Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

Select one course from the following:

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Select one course from the following:

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.
or

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.
or

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Chemistry Teacher Education (Track 5/6) (UCF)

Admission Program Objective Code: CTED

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 5/6

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

CHM 1045C - College Chemistry I

4 Credit Hours ♦

(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

Select from the following groups of courses:

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
and

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.
or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered

if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
and

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Physics Teacher Education (Track 6/6) (UCF)

Admission Program Objective Code: PHYE
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 6/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program

leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry,

coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Secondary Teacher Education - Secondary Mathematics Teacher Education (Track 3/6) (UCF)

Admission Program Objective Code: SMTE

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131205, track 3/6
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

Select one course from the following:

MAC XXXX

or MTG XXXX

or MAS XXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Psychology

Admission Program Objective Code: SOPS
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 422707
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Sciences Teacher Ed (History, Social Science, Economics, and Political Science)

Admission Program Objective Code: SSTE
State CIP Code: 1192401010

Offered at FAMU, FAU, FSU, UCF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131317
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

- ECOXXXX - Any course with the ECO prefix
or
- SOCXXXX - Any course with the SOC prefix
or
- ANTXXXX - Any course with the ANT prefix
or

- PSYXXXX - Any course with the PSY prefix
or
 - GEAXXXX - Any course with the GEA prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Sciences, General

Admission Program Objective Code: SOSI
State CIP Code: 1192401010

Offered at FAU, FSU, UCF, USF, USFSM, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 450101
 Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- Choose any two AA General Education Social Science courses

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Social Work, General

Admission Program Objective Code: SOWR
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FIU, FSU*, UCF*, USF*, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 440701
 * See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2013 - Economics I

**3 Credit Hours ♦
(Fall, Spring)**

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

ECO 2023 - Economics II

**3 Credit Hours
(Spring)**

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PSY 2012 - Psychology

**3 Credit Hours ♦
(Fall, Spring, Summer)**

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2000 - Sociology

**3 Credit Hours ♦ ♦
(Fall, Spring, Summer)**

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

- ❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.
- ◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

SYG 2010 - Social Problems

3 Credit Hours ◆ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AA Transfer Major: Sociology

Admission Program Objective Code: SOCI
State CIP Code: 1192401010

Offered at FAMU, FAU, FGCU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451101, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

- Two Sociology courses - Choose from: SYG 2000, SYG 2010, SYG 2430

AA Transfer Major: Sociology - Anthropology

Admission Program Objective Code: SOAN
State CIP Code: 1192401010

Offered at FUI

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 451101, track 1/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Spanish

Admission Program Objective Code: SPAN

State CIP Code: 1192401010

Offered at FAU, FGCU, FIU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 160905

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

SPN 1120 - Spanish I

4 Credit Hours ♦

(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SPN 1121 - Spanish II

4 Credit Hours

(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): SPN 1120 or an equivalent course with a grade of "C" or better.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2220 - Spanish III

4 Credit Hours

(Offered as needed)

Intermediate level review of grammar, readings in Spanish Literature, and development of conversational and writing skills.

Prerequisite(s): SPN 1121 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Special Education, General

Admission Program Objective Code: SPED

State CIP Code: 1192401010

Offered at BC, CC, DSC, FAU, FGCU, FIU, FSU*, UCF, UF*, UNF, USF, USFSM, USFSP, UWF, SPC, IRSC, MDC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131001
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Speech Communication and Rhetoric

Admission Program Objective Code: SPCO

State CIP Code: 1192401010

Offered at FAU, FIU, UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer

institution to confirm program requirements.

Transfer Program CIP code: 090101
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

AA Transfer Major: Speech Pathology & Audiology (FSU, UCF, UF, USF)

Admission Program Objective Code: SPCP
State CIP Code: 1192401010

Offered at FSU*, UCF, UF*, USF, USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510204, track 1/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- BSCXXXX - Any course with the BSC prefix

- PHYXXXX - Any course with the PHY prefix
or
- CHMXXXX - Any course with the CHM prefix

- PSYXXXX - Any course with the PSY prefix
or
- CLPXXXX - Any course with the CLP prefix
or
- DEPXXXX - Any course with the DEP prefix
or
- SYGXXXX - Any course with the SYG prefix

AA Transfer Major: Speech Pathology & Audiology (USFSM)

Admission Program Objective Code: SPCU

State CIP Code: 1192401010

Offered at USFSM

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510201

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- BSCXXXX - Any course with the BSC prefix

- PHYXXXX - Any course with the PHY prefix
or
- CHMXXXX - Any course with the CHM prefix

- PSYXXXX - Any course with the PSY prefix
or
- CLPXXXX - Any course the the CLP prefix
or
- DEPXXXX - Any course with the DEP prefix
or
- SYGXXXX - Any course with the SYG prefix

AA Transfer Major: Speech Pathology & Audiology - Deaf Studies Concentration

Admission Program Objective Code: SPCH

State CIP Code: 1192401010

Offered at USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510204, track 3/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Sport Management

Admission Program Objective Code: SPME

State CIP Code: 1192401010

Offered at FSU, UF, UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 310504
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- MARXXXX - Any course with the MAR prefix
or
- GEBXXXX - Any course with the GEB prefix

- MANXXXX - Any course with the MAN prefix
or
- BULXXXX - Any course with the BUL prefix
or
- CGSXXXX - Any course with the CGS prefix
or
- STA 2023 - Statistics **4 Credit Hours**
or
- ACGXXXX - Any course with the ACG prefix

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.
or

- ECOXXXX - Any course with the ECO prefix (ECO 2013 or ECO 2023)

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Statistics

Admission Program Objective Code: STAT
State CIP Code: 1192401010

Offered at FIU, FSU, UCF, UF, UNF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 270501
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

- COPXXXX - A scientific programming course designed for computer science majors* (COP 2011, COP 2222, COP 2228, COP 2362, COP 2658 , COP 2662, COP 2805, COP 2833, COP 2840)

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

- Two laboratory based science courses for science majors* (BSC 1010C, BSC 1011C, CHM 1045C, CHM 1046C, GLY 2010C, GLY 2100C, PHY 2048C, PHY 2049C)

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Studio/Fine Art

Admission Program Objective Code: SDAR
State CIP Code: 1192401010

Offered at FAMU, FGCU,, FIU, FSU*, UCF, UF*, UNF*, USF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500702, track 1/2

* See notes on Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment in studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ARTXXXX - Two courses with the ART prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Studio/Fine Art - Graphic Design

Admission Program Objective Code: SDGD

State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500702, track 2/2
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- ARHXXXX - Any course with the ARH prefix

ART 1301C - Drawing II

3 Credit Hours

(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

or

ART 1203C - Three-Dimensional Design

3 Credit Hours

(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

or

ART 2330C - Figure Drawing I

3 Credit Hours

(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment in studio art classes is permitted on a space-available basis only.

GRA 2190C - Graphic Design I

3 Credit Hours

(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

- GRAXXXX - Any course with the GRA prefix

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Supervision & Management (BAS), Organizational Mgt (BAS), Business & Org Mgt (BAS), Administration & Supervision (BAS), Spvr & Org Mgt (BAS) Mgt & Org Leadership (BAS)

Admission Program Objective Code: SVMG

State CIP Code: 1192401010

Offered at BCC, BC, CC, CCF, DSC, FSWFC, FSCJ, GCSC, IRSC, LSSC, MDC, NWFSC, PBSC, PESC, PSC, SFC, SFSC, SJRSC, SPC
(CIP 520299 is Management and Supervision at NWFSC)

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520299

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Supply Chain Management (BAS)

Admission Program Objective Code: SUPP

State CIP Code: 1192401010

Offered at BC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520203, track 1/3

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Surveying

Admission Program Objective Code: SURV
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 151102
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Sustainability and Built Environment

Admission Program Objective Code: SSBL
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 303301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

No required courses for this Transfer Major.

AA Transfer Major: Sustainability Management - BAS

Admission Program Objective Code: SUST
State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 030299
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

Students with the following Associate in Science (AS) degrees will be admitted: Environmental Science Technology, Architectural Design & Construction Technology, Drafting and Design Technology or Engineering Technology.

Students who do not have one of the AS degrees listed will be required to take 15 credits in related coursework which mirrors coursework for SPC's AS in Environmental Science Technology degree requirements.

- The courses include: ARCXXXX, CHMXXXX, ECO 2013, ECO 2023, EETXXXX, ETM 1010C, ESCXXXX, EVRXXXX, GLYXXXX, GIS 1040C, OCEXXXX, PHYXXXX

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Teacher Education, Multiple Levels (Track 1/3) (USFSP)

Admission Program Objective Code: TCHE
State CIP Code: 1192401010

Offered at USFSP

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131206, track 1/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

AA Transfer Major: Teacher Education, Multiple Levels - Art Education (Track 2/3) (UCF)

Admission Program Objective Code: ARTE
State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131206, track 2/3
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student

will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

Select one course from the following:

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.
or

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Technology Management (BAS)

Admission Program Objective Code: TCMG

State CIP Code: 1192401010

Offered at BC, FSCJ, GCSC, PBSC, SCFMS, SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 111099

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

Admission into this BAS program requires an AS degree from a regionally-accredited institution in Computer Engineering Technology, Computer Information Technology, Computer Programming or Database Technology. Students with an AA degree, 60 credit hours but no degree, or an AS degree in another area may be admitted by the Dean on a case-by-case basis.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Tourism and Travel Services Management

Admission Program Objective Code: TOUR

State CIP Code: 1192401010

Offered at UCF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520907

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

AA Transfer Major: Trade & Industrial Teacher Ed (Vocational)

Admission Program Objective Code: TRAD

State CIP Code: 1192401010

Offered at FIU, UCF, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 131320

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Education Required Courses

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

** See Notes on Common Course Prerequisite Manual, link above

Transfer Major Required Courses*

- 15 hours in courses from the area of specialization*

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Transportation Management

Admission Program Objective Code: TRAN
State CIP Code: 1192401010

Offered at UNF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 520209
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1550 - Introduction to World Wide Web

3 Credit Hours
(Fall)

This course provides an introduction to the required hardware, software, procedures, uses and building web pages on the World Wide Web and the Internet.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AA Transfer Major: Urban & Regional Planning

Admission Program Objective Code: URBA
State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 040301
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Urban Design

Admission Program Objective Code: URDS

State CIP Code: 1192401010

Offered at FAU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 040401

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Veterinary Technology (BAS)

Admission Program Objective Code: VET

State CIP Code: 1192401010

Offered at SPC

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510808

Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Vocational Rehabilitation Counseling

Admission Program Objective Code: VOCR
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 512310
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

- SYGXXXX - Any course with the SYG prefix
- * See Notes on Common Course Prerequisite Manual

AA Transfer Major: Women's Studies

Admission Program Objective Code: WOMN
State CIP Code: 1192401010

Offered at FIU, UF, USF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 050207
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

No required courses for this Transfer Major.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Zoology

Admission Program Objective Code: ZOO
State CIP Code: 1192401010

Offered at UF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 260701
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

AA Transfer Major: Health Science (Track 1/7) (FAU, UF*, USF, USFSP, UWF)

Admission Program Objective Code: HSCI
State CIP Code: 1192401010

Offered at FAU, UF*, USF, USFSP, UWF

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, Track 1/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
or

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

or

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Health Science - Interdisciplinary Medical Science (Track 7/7) (FSU)

Admission Program Objective Code: MESI
State CIP Code: 1192401010

Offered at FSU

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 510000, Track 7/7
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

Select from the following:

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

* See Notes on Common Course Prerequisite Manual

AA Transfer Major: Music, General - Music Teacher Education (FIU*) (Track 2/2)

Admission Program Objective Code: MTEA
State CIP Code: 1192401010

Offered at FIU*

Individual course requirements at specific institutions may sometimes differ from the published Common Course Prerequisite Manual. NWFSC recommends students see an academic advisor as well as contact their transfer institution to confirm program requirements.

Transfer Program CIP code: 500901
Common Course Prerequisite Manual

The following courses are required for admission into the University Transfer Program. Please see the AA - Associate in Arts General Degree as well as the AA Degree General Education Requirements pages for complete AA degree requirements.

Transfer Major Required Courses*

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour
(Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- MUNXXXX - Any course with MUN prefix
 - MV(K/S/V) XX1X (Applied Music course)
 - MV(K/S/V) XX2X (Applied Music course)
 - XXXXXXX
 - Secondary Piano Proficiency (exam)
- * See Notes on Common Course Prerequisite Manual

AAS Degree

AAS Degree General Education Requirements

Associate in Applied Science Degree (AAS)

Associate of Applied Science Degree (AAS Degree)

The Associate of Applied Science degree is a two-year, non-transfer college credit curricula designed to prepare students for employment in various technical and semi-professional fields. The A.A.S. degree consists of a minimum of 60 college credits, of which at least 18 are general education courses. Because the A.A.S. degree is not intended for transfer, the selection of general education and technical courses is broader and more flexible than that of the A.S. degree.

Graduation Requirements for A.A.S. Degree

A.A.S. degree students must satisfy the following requirements:

- Complete the A.A.S. general education courses as appropriate to the program of study, including Speaking-Across-the-Curriculum, Technology-Across-the-Curriculum, and minimum grade requirements.
- Complete at least fifteen credits of the technical core courses and technical elective courses specified in the degree program at NWF State College, unless there is an established articulation agreement.
- Complete at least 25% of the credits at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Complete A.A.S. General Education requirements.

Customizing an A.A.S. Degree to Meet a Specific Career Goal

In order to provide a student with the strongest technical background feasible, some technical courses within a given degree program may be adjusted to meet the student's targeted career goal. In these special cases, course substitutions may be approved upon request of the appropriate department chair to the Dean of Career and Technical Education.

Department: Applied Management

Associate in Applied Science

Applied Management (AAS)

Admission Program of Study Code APMG

State CIP Code 0552020107

The A.A.S. degree in Applied Management examines the ways in which management skills are used in a variety of businesses. Students interested in a broad range of technical fields will be able to prepare for leadership roles in the Business Management and Administration professions.

General Education

Select one course from each category; see the AAS Degree General Education Requirements section of catalog for specific course listings:

- _____ LIN 1670 - LIN 1670 - Writing and Grammar or higher Communication Course **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ MAT 1033A - MAT 1033A - Intermediate Algebra Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage

and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 12

Technical Elective Courses

Select 30 credits from the following:

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

3 Credit Hours
(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today.

Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours (Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

_____ Other Approved College Credits (Requires Dept. Chair Approval)

Total Technical Elective Credits Required: 30

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Applied Management (AAS) - (XXXX)
First Year
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education Course 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Spring Semester MNA 1345 - Supervision I 3 Credit Hours

Science General Education Course **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

MAN 2021 - Management **3 Credit Hours**

OST 2335 - Business Communications **3 Credit Hours**

Humanities General Education Course **3 Credit Hours**

Social Science General Education **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

MAN 2300 - Personnel Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

AS Degrees and Certificates

- AS Degree General Education Requirements
- AS Degree Graduation Requirements
- AS Degree Program Information
- Certificate to AS Degree Career Paths
- Certificate and ATD Program Information
- Certificate and ATD Graduation Requirements

Associate in Science Degrees (AS) and Certificates

Associate in Science Degree (AS)

The Associate in Science degree provides students with college credit curricula designed to prepare them for employment in various semi-professional, technical, and supervisory fields. The A.S. degree programs include a minimum of 60 college credit hours, of which at least 18 are general education courses. The A.S. degree is not generally intended for transfer; however, many students eventually pursue upper division study after completing the A.S. degree. In recognition of this practice, the general education courses required for the A.S. degree meet all applicable Gordon Rule standards and minimum grade requirements; all are transferable as general education credits to upper division institutions in the Florida State University System. Many of the technical courses in the A.S. degree are also transferable, but students should work closely with an advisor in selecting technical courses if transfer is an eventual goal.

Companion Certificate Programs

Many of the technical certificate programs offered by NWF State College provide the initial step in meeting selected course requirements for an A.S. degree in a related area. Courses from those certificates are the same as or equivalent to comparable courses in the companion degree program. Likewise, courses used in the degree program may be applied to a certificate in a related area; in many cases, completion of the technical courses in the degree program can automatically qualify the student to receive the companion certificate.

Graduation Requirements for A.S. Degree

A.S. degree students must satisfy the following requirements:

- Complete the A.S. general education courses as appropriate to the program of study, including Speaking-Across-the-Curriculum, Technology-Across-the-Curriculum, minimum Gordon Rule course and minimum grade requirements.
- Complete at least fifteen credits of the technical core courses and technical elective courses specified in the degree program at NWF State College, unless there is an established articulation agreement.
- Complete at least 25% of the credits at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued at NWF State College.
- Maintain a cumulative grade point average of at least 2.00 for all college credit course work pursued, whether at NWF State College or by transfer.
- Complete AS Degree General Education Requirements (all Gordon Rule courses require a minimum grade of "C").

Customizing an A.S. to Meet a Specific Career Goal

In order to provide a student with the strongest technical background feasible, some technical courses within a given degree program may be adjusted to meet the student's targeted career goal. In these special cases, course substitutions may be approved upon request of the appropriate department chair to the Dean of Career and Technical Education.

College Credit Certificates (CCC)

College credit certificates range from eleven (11) to forty-two (42) credits in length, although most are comprised of thirty (30) credits, and require approximately one academic year to complete. Courses in these certificates include professional and technical skills, with an emphasis on practical application.

Each of the NWF State College credit certificates is paired with a companion A.S. degree program. Upon successful completion of the college credit certificate, the student may receive credit toward approximately 45% to 50% of the course requirements in the companion degree program. Conversely, students who successfully complete the technical credits within a companion degree program may qualify for graduation from the appropriate certificate program. In this manner, students may receive two graduation credentials from the college. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Career and Technical or Vocational Certificates (CCP)

Career and technical or vocational certificates are comprised of clock hour courses and are designed to prepare students for direct entry into employment. The certificates are generally less than one year in length and are designed to prepare students for employment in selected occupational skill areas. The curriculum is heavily oriented toward problem solving and skill application. In certain circumstances, the skills acquired through completion of a career and technical or vocational certificate may be articulated into comparable college credit work and applied to college credit certificate, or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Graduation Requirements for Certificate

To successfully complete a college credit or a career and technical or vocational certificate, the student must meet the following requirements.

1. Complete the courses and other requirements as specified in the program of study. (With advance approval, college credit courses may be substituted for equivalent vocational courses in any career and technical or vocational certificate.)
2. Complete at least 25% of the certificate coursework in residence at Northwest Florida State College.
3. Maintain a cumulative GPA of not less than 2.00 in all coursework pursued for the certificate.
4. Satisfy all other college graduation requirements.

In addition, students wishing to complete a career and technical or vocational certificate must demonstrate minimum skill levels in reading, communications, and mathematics, as measured by the TABE. The levels vary for each program of study.

Certificate to AS Degree Career Paths

Many of the technical certificate programs offered by NWFSC provide the initial step in meeting selected course requirements for an A.S. degree in a related area. Courses from those certificates are the same as or equivalent to comparable courses in the companion degree program. Likewise, courses used in the degree program may be applied to a certificate in a related area; in many cases, completion of the technical courses in the degree program can automatically qualify the student to receive the companion certificate. Listed below are the NWFSC Associate in Science degrees and their companion certificates.

Accounting Technology

Associate in Science

Accounting Technology (AS)

Admission Program of Study Code ACCT
State CIP Code 1552030201

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Accounting Technology Management (CCC) (State CIP Code 0552030205).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours
(Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACO 1806 - Payroll Accounting

3 Credit Hours
(Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 36

Technical Elective Courses

Select 6 credits from the following:

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 2242 - Business Law II

3 Credit Hours

Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours

(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours

(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours

(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Total Technical Elective Credits Required: 6

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Accounting Technology (AS) (ACCT)
First Year
Fall Semester
CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours

GEB 1011 - Introduction to Business **3 Credit Hours**

MTB 1103 - Business Mathematics **3 Credit Hours**

ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶

Humanities General Education **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ECO 2013 - Economics I **3 Credit Hours** ♦

ENC 2210 - Technical Report Writing **3 Credit Hours**

ACO 1806 - Payroll Accounting **3 Credit Hours**

Science General Education Course **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

ACG 2001 - Accounting I **3 Credit Hours**

BUL 2241 - Business Law I **3 Credit Hours**

Technical Elective **3 Credit Hours**

Social Science General Education **3 Credit Hours**

Mathematics General Education Course **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ACG 2011 - Accounting II **3 Credit Hours**

ACG 2450 - Computer Applications for Accounting **3 Credit Hours**

TAX 2000 - Federal Income Tax: Individual **3 Credit Hours**

ACG 2071 - Managerial Accounting **3 Credit Hours**

Technical Elective 3 Credit Hours
Total Semester Hours: 15
Total Program Hours: 60

College Credit Certificate

Accounting Technology Management (CCC)

Admission Program of Study Code AASA

State CIP Code 0552030205

Students who successfully complete this certificate may be eligible to receive credits towards the Accounting Technology (AS) degree (State CIP Code 1552030201).

Core Courses

ACG 2001 - Accounting I

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours

(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours

(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to

management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours
(Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACO 1806 - Payroll Accounting

3 Credit Hours
(Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the

activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 27

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Accounting Technology Management (CCC) (ACCM)

Fall Semester

ACG 2001 - Accounting I **3 Credit Hours**

CGS 1100 - Microcomputer Applications **3 Credit Hours ▲** or CGS 1570 - Computer Applications for Business **3 Credit Hours**

GEB 1011 - Introduction to Business **3 Credit Hours**

MTB 1103 - Business Mathematics **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

ACG 2011 - Accounting II **3 Credit Hours**

ACG 2450 - Computer Applications for Accounting **3 Credit Hours**

ACG 2071 - Managerial Accounting **3 Credit Hours**

ACO 1806 - Payroll Accounting **3 Credit Hours**

TAX 2000 - Federal Income Tax: Individual **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 27

Business Administration

Associate in Science

Business Administration (AS)

Admission Program of Study Code BADM

State CIP Code 1552020102

Students who successfully complete selected courses from this program of study may be eligible to receive the Business Management (CCC) (State CIP Code 0552070101) and/or Business Specialist (Marketing) (CCC) (State CIP Code 0552020103) college credit certificates.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**

- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

3 Credit Hours
(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Administration (AS) (BADM)
First Year
Fall Semester ACG 2001 - Accounting I 3 Credit Hours GEB 1011 - Introduction to Business 3 Credit Hours CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education Course 3 Credit Hours Total Semester Hours: 15
Spring Semester ACG 2011 - Accounting II 3 Credit Hours BUL 2241 - Business Law I 3 Credit Hours ECO 2013 - Economics I 3 Credit Hours ♦ Science General Education Course 3 Credit Hours Additional General Education Hours 3 Credit Hours Total Semester Hours: 15
Second Year

Fall Semester

MAN 2021 - Management **3 Credit Hours**

Humanities General Education Course **3 Credit Hours**

Social Science General Education Course **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ENC 2210 - Technical Report Writing **3 Credit Hours**

ACG 2071 - Managerial Accounting **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

College Credit Certificate**Business Development and Entrepreneurship (CCC)**

Admission Program of Study Code BMDE

State CIP Code 0552070306

Students who successfully complete this certificate may be eligible to receive credits towards the Business Administration (AS) degree (State CIP Code 1552020102).

Core Courses**ACG 2001 - Accounting I**

3 Credit Hours

(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ENT 2931 - Selected Studies in Entrepreneurship

1 Credit Hour
(Spring)

In this course, topics of current interest are presented in group instruction.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as

management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours

(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours

(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SBM 2000 - Small Business Management

3 Credit Hours

(Spring)

This course provides students the opportunity to learn hands-on technical applications regarding entrepreneurship. It is designed for the student who is interested in the ownership and management of a small business enterprise.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 25

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Development and Entrepreneurship (CCC) (Program Code Needed)
Fall Semester
ACG 2001 - Accounting I 3 Credit Hours
GEB 1011 - Introduction to Business 3 Credit Hours

GEB 2430 - Business Ethics **3 Credit Hours**

MAN 2021 - Management **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

BUL 2241 - Business Law I **3 Credit Hours**

MAN 2300 - Personnel Management **3 Credit Hours**

OST 2335 - Business Communications **3 Credit Hours**

SBM 2000 - Small Business Management **3 Credit Hours**

ENT 2931 - Selected Studies in Entrepreneurship **1 Credit Hour**

Total Semester Hours: 13

Total Program Hours: 25

Business Management (CCC)

Admission Program of Study Code BMGC
State CIP Code 0552070101

Students who successfully complete this certificate may be eligible to receive credits toward the Business Administration (AS) degree (CIP Code 1552020102).

Core Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 12

Technical Elective Courses

Select 12 credits from the following:

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours (Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours (Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 12

Total Program Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Management (CCC) (BMGC)
Fall Semester
ACG 2001 - Accounting I 3 Credit Hours

CGS 1100 - Microcomputer Applications **3 Credit Hours ▲** or CGS 1570 - Computer Applications for Business **3 Credit Hours**

GEB 1011 - Introduction to Business **3 Credit Hours**

MAN 2021 - Management **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 24

Business Specialist (Marketing) (CCC)

Admission Program of Study Code BMKC

State CIP Code 0552020103

Students who successfully complete this certificate may be eligible to receive credits toward the Business Administration (AS) degree (CIP Code 1552020102).

Core Courses

MAR 2011 - Introduction to Marketing

3 Credit Hours

(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

3 Credit Hours

(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Business Specialist (Marketing) (CCC) (BUSS)
Fall Semester
MAR 2011 - Introduction to Marketing 3 Credit Hours
MKA 2021 - Professional Selling 3 Credit Hours
Total Semester Hours: 6
Spring Semester
MKA 2041 - Retail Management 3 Credit Hours
MKA 2511 - Introduction to Advertising 3 Credit Hours
Total Semester Hours: 6

Total Program Hours: 12

Computer Programming and Analysis

Associate in Science

Computer Programming and Analysis (AS)

Admission Program Objective Code CPRO

State CIP Code 1511020101

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Computer Programmer (CCC) (State CIP Code 0511020200) and/or Computer Programming Specialist (CCC) (State CIP Code 0511020103).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Science **3 Credit Hours**
- ____ Social Science **3 Credit Hours**
- ____ General Education Electives **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 2820 - Web Design

3 Credit Hours

(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including

interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programming and Analysis (AS) (CPRO)	Companion Certificates*	
	CMPG	CMPS
First Year		
Fall Semester		
COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours	√	√
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶		
Humanities General Education 3 Credit Hours		
Technical Elective 3 Credit Hours		
Technical Elective 3 Credit Hours		
Total Semester Hours: 15		
Spring Semester		
COP 2220 - Programming in C 3 Credit Hours	√	
COP 2224 - Programming in C++ 3 Credit Hours	√	√
COP 2800 - Introduction to Java Programming 3 Credit Hours	√	√
MAD 2104 - Introduction to Discrete Mathematics 3 Credit Hours		
Science General Education Course 3 Credit Hours		
Total Semester Hours: 15		
Second Year		
Fall Semester		
CGS 2820 - Web Design 3 Credit Hours	√	√
Technical Elective 3 Credit Hours		
Technical Elective 3 Credit Hours		

Social Science General Education Course 3 Credit Hours		
Mathematics General Education Course 3 Credit Hours		
Total Semester Hours: 15		
Spring Semester		
COP 2010 - Visual Basic Programming 3 Credit Hours	√	
COP 2228 - Advanced Programming in C++ 3 Credit Hours		
COP 2700 - Introduction to SQL 3 Credit Hours	√	√
Additional General Education Credits 3 Credit Hours		
Technical Elective 3 Credit Hours		
Total Semester Hours: 15		
Total Program Hours: 60		
* Courses with √ can also be used in the Companion Certificate indicated: CMPG - Computer Programmer (CCC) CMPS - Computer Programming Specialist (CCC)		

College Credit Certificate

Computer Programmer (CCC)

Admission Program of Study Code CMPG

State CIP Code 0511020200

Students who successfully complete this certificate may be eligible to receive credits towards the Computer Programming and Analysis (AS) degree (State CIP Code 1511020101).

Core Courses

CGS 2820 - Web Design

3 Credit Hours

(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

**3 Credit Hours
(Spring)**

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

**3 Credit Hours
(Fall, Spring)**

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 21

Technical Elective Courses

Select 12 credits from the following:

CIS 1940 - Internship in Computer Studies

**3 Credit Hours
(Offered as needed)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 12

Total Program Credits Required: 33

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programmer (CCC) (CMPG)
Fall Semester COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours CGS 2820 - Web Design 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 9
Spring Semester COP 2220 - Programming in C 3 Credit Hours COP 2010 - Visual Basic Programming 3 Credit Hours COP 2800 - Introduction to Java Programming 3 Credit Hours COP 2700 - Introduction to SQL 3 Credit Hours

COP 2224 - Programming in C++ 3 Credit Hours

Total Semester Hours: 15

Summer Semester

COP 2805 - Advanced Java Programming 3 Credit Hours

Technical Elective 3 Credit Hours

Technical Elective 3 Credit Hours

Technical Elective 3 Credit Hours

Total Semester Hours: 12

Total Program Hours: 33

Computer Programming Specialist (CCC)

Admission Program of Study Code CMPS

State CIP Code 0511020103

Students who successfully complete this certificate may be eligible to receive credits towards the Computer Programming and Analysis (AS) degree (State CIP Code 1511020101).

Core Courses

CGS 2820 - Web Design

3 Credit Hours

(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours

(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 12

Technical Elective Courses

Select 6 credits from the following:

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved

projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours (Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours (Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours (Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 6

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Computer Programming Specialist (CCC) (CMPS)
Fall Semester COP 1000 - Introduction to Programming Concepts and Logic 3 Credit Hours CGS 2820 - Web Design 3 Credit Hours Total Semester Hours: 6
Spring Semester COP 2224 - Programming in C++ 3 Credit Hours COP 2800 - Introduction to Java Programming 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 12
Total Program Hours: 18

Criminal Justice Technology

Associate in Science

Criminal Justice Technology (AS)

Admission Program of Study Code CJTC
State CIP Code 1743010302

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ Communication Skills **3 Credit Hours**
- ____ Humanities **3 Credit Hours**
- ____ Mathematics **3 Credit Hours**
- ____ Natural Sciences **3 Credit Hours**
- PSY 2012 Psychology **3 Credit Hours** ♦
- SYG 2000 Sociology **3 Credit Hours** ♦ ♦

Total General Education Credits Required: 18

Core Courses

CCJ 1010 - Introduction to Criminology

3 Credit Hours
(Spring)

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; theory development in criminology, crime rates and trends, victimology and particular crime pattern areas.

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CJC 2000 - Introduction to Corrections

3 Credit Hours
(Fall)

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; and problems of rehabilitation are covered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJE 2300 - Police Administration and Organization

3 Credit Hours
(Fall, Spring, Summer)

This course presents the principles of organization and administration in law enforcement including functions and activities, planning and research, public relations, personnel and training, inspection and control, records and communications and custody.

CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of

criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

Total Core Credits Required: 21

Technical Elective Courses

Select 21 credits from the following:

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CCJ 1941 - Internship – Criminal Justice

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Permission of the instructor

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CCJ 2509 - Introduction to Gangs and Crime

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of street gangs, the social factors, and the general classifications necessary for the law enforcement, corrections, and public safety professional. This course explores the history, membership, activity, current trends, and influence of street gangs. Students will be challenged to define community-based solutions and strategies to combat the criminal activity associated with street gangs.

CCJ 2934 - Special Topics in Criminal Justice

2 Credit Hours
(Fall, Spring, Summer)

This course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

*This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CJE 1642C - Introduction to Crime Scene Technology

3 Credit Hours
(Fall, Spring, Summer)

This course explains and discusses the principals and theories in crime scene technology. The course covers specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence, gunshot residue, blood splatter and bodies.

CJE 1735 - Unmanned Vehicle Legal Requirements and Case Law

3 Credit Hours
(Fall)

This course examines the legal requirements and limits of drone operation by law enforcement. The course will also introduce the student to case studies, guidelines, laws, and protocols for law enforcement operations in contrast to use by private citizens. Additionally, this case will examine and define expectations of privacy, based on case law as set forth by the United States Supreme Court. Case studies and Supreme Court decisions from the last century based on the fourth amendment and due process of law, will be studied for class projects. Each student will be required to submit a research paper on a specific related topic as assigned by the instructor.

CJE 2330 - Ethics in Criminal Justice

3 Credit Hours
(Fall, Spring, Summer)

This course is a detailed exploration of ethical issues in Criminal justice with special emphasis on morality and the law, human behavior, and ethical decision making in law enforcement, corrections and the courts.

CJE 2400 - Police and Community Relations

3 Credit Hours
(Fall, Spring, Summer)

A study of the relationship of the Justice Administration agencies to the surrounding community. Examines the effect of social change and the consequences that it produces upon law enforcement, corrections, and the courts.

CJE 2600 - Criminal Investigations

3 Credit Hours
(Offered as needed)

Fundamentals of investigation; duties and responsibilities of the detective; interrogation techniques; search and techniques of protecting the crime scene; collection and preservation of evidence; modus operandi systems; scientific aids and other sources of information; court preparation and case follow-up.

CJE 2736 - Law Enforcement Applications of Unmanned Vehicles for 21st Century

3 Credit Hours
(Fall)

This course will introduce students to current law enforcement uses and abilities of unmanned vehicle systems, along with new and developing applications for exclusive use in law enforcement actions. Students will understand and explain the definitions of privacy expectations as related to law enforcement actions governed by the fourth amendment. Students will be required to participate in a course project, in which students will develop, justify and define futuristic uses on drone technologies in the law enforcement field. In this team project, a presentation is required to defend the positions and uses of drone technologies as related in the project results.

CJJ 1002 - Juvenile Delinquency

3 Credit Hours
(Offered as needed)

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJL 2130 - Criminal Evidence and Procedure

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of criminal procedure particularly applied to search and seizure and evaluation of evidence.

FFP 1801 - Introduction to Emergency Management Administration

3 Credit Hours
(Offered as needed)

This course will discuss emergency management practices and how they relate to natural and man-made disasters. It is designed to help the student develop an understanding of overall emergency management principles, practices, and standards in the local, national, and international environments.

FFP 2820 - Emergency Preparedness

3 Credit Hours
(Offered as needed)

This course teaches all aspects of emergency preparedness and planning related to natural and man-made disasters, and basic principles of emergency management. Planning concepts and the planning process will be discussed.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this

course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Total Technical Elective Credits Required: 21

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Criminal Justice Technology (AS) (CJTC)
First Year
Fall Semester
CCJ 1020 - Introduction to Criminal Justice 3 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
Mathematics General Education 3 Credit Hours
Technical elective 3 Credit Hours
Technical elective 3 Credit Hours
Semester Total Hours: 15

Spring Semester

CCJ 1010 - Introduction to Criminology **3 Credit Hours**

CJC 2000 - Introduction to Corrections **3 Credit Hours**

PSY 2012 - Psychology **3 Credit Hours** ♦

Humanities General Education **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Second Year**Fall Semester**

CJL 1100 - Criminal Law **3 Credit Hours**

CJL 2500 - Courts and the Judicial Process **3 Credit Hours**

SYG 2000 - Sociology **3 Credit Hours** ♦ ♦

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Spring Semester

CJE 2300 - Police Administration and Organization **3 Credit Hours**

CJJ 1002 - Juvenile Delinquency **3 Credit Hours**

CJL 1400 - Criminal Procedure **3 Credit Hours**

Natural Sciences **3 Credit Hours**

Technical Elective **3 Credit Hours**

Semester Total Hours: 15

Total Program Hours: 60

Vocational Certificate

Correctional Officer (Basic) (CCP)

Admission Program of Study Code CORR
State CIP Code 0743010200

Entry into Criminal Justice Certificate Programs requires meeting the standards as established by the Criminal Justice Standards and Training Commission and the Florida Department of Law Enforcement for employment. A copy of these requirements will be furnished by the Public Safety Division at NWF State College.

Core Courses

CJK 0300 - Introduction to Corrections

33 Clock Hours
(Offered as needed)

This course introduces students to the legal and ethical responsibilities of a correctional officer. Legal terms and definitions are explained. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0305 - CJSTC Communications

42 Clock Hours
(Offered as needed)

This course covers the entire report writing process. Topics include interview and interrogation, interpersonal communication, and practical exercises. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0310 - Officer Safety

12 Clock Hours
(Offered as needed)

Correctional officer safety procedures are learned. Students will learn to identify potential hazards and learn how to safely respond. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0315 - Facility and Equipment

12 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for inspecting a correctional facility and equipment. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0320 - Intake and Release

18 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for admitting and releasing inmates in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0325 - Supervising in a Correctional Facility

42 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for supervising inmates in a correctional facility. They also learn to detect crimes and rule violations in various correctional facility settings. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0330 - Supervising Special Populations

21 Clock Hours
(Offered as needed)

Students learn how to identify and supervise special population groups, such as threat groups, juveniles, elderly, and mentally ill inmates. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0335 - Responding to Incidents and Emergencies

18 Clock Hours
(Offered as needed)

Students learn how to identify and respond to situations involving escapes, riots, bomb threats, fires, and medical emergencies in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0051 - Defensive Tactics

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0040 - CMS Firearms

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to

college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0340 - Corrections CCP Physical Fitness

30 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 438

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Correctional Officer (Basic) (CCP) (CORR)
Fall Semester
CJK 0300 - Introduction to Corrections 33 Clock Hours
CJK 0305 - CJSTC Communications 42 Clock Hours

CJK 0310 - Officer Safety **12 Clock Hours**

CJK 0315 - Facility and Equipment **12 Clock Hours**

CJK 0320 - Intake and Release **18 Clock Hours**

CJK 0325 - Supervising in a Correctional Facility **42 Clock Hours**

CJK 0330 - Supervising Special Populations **21 Clock Hours**

CJK 0335 - Responding to Incidents and Emergencies **18 Clock Hours**

CJK 0031 - CMS First Aid for Criminal Justice Officers **48 Clock Hours**

CJK 0040 - CMS Firearms **81 Clock Hours**

CJK 0051 - Defensive Tactics **81 Clock Hours**

CJK 0340 - Corrections CCP Physical Fitness **30 Clock Hours**

Total Semester Clock Hours: 438

Total Program Clock Hours: 438

Law Enforcement Officer (Basic) (CCP)

Admission Program of Study Code LEOB

State CIP Code 0743010700

Entry into Criminal Justice Certificate Programs requires meeting the standards as established by the Criminal Justice Standards and Training Commission and the Florida Department of Law Enforcement for employment. A copy of these requirements will be furnished by the Public Safety Division at NWF State College.

Core Courses

CJK 0001 - Introduction to Law Enforcement

12 Clock Hours

(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to law enforcement, the process for becoming a certified law enforcement officer, and the requirements of the academy program. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0012 - Legal

63 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to the criminal justice system, the chain-of-command system in law enforcement, Constitutional Law, Florida Statutes, and the Police Code of Ethics. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0013 - Interactions in a Diverse Community

42 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enhance student awareness and understanding of human diversity issues and to teach students skills to enable them to effectively interact with people of diverse backgrounds. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0014 - Interviewing and Report Writing

54 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to help the student learn vital communication skills including interviewing, note-taking, statement taking, and report writing. It also helps the student to develop survival skills, stress management skills, and problem solving skills utilizing the SECURE model. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0020 - Law Enforcement CMS Vehicle Operations

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply vehicle operations knowledge, principles and techniques to the police driving environment. This course includes classroom instruction and practical application on the driving range. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0040 - CMS Firearms

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0051 - Defensive Tactics

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0064 - Fundamentals of Patrol

36 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to understand Community Oriented Policing and how it is implemented as a problem solving model, and identify the SECURE problem solving model and its application in real life situations; understand officer safety issues, identify and avoid fatal errors, identify and manage stress, maintain mental and physical fitness; respond to a call, approach a suspect, make an arrest, transport a prisoner and process the prisoner at a detention facility; and understand how to direct traffic, how to enforce traffic citations, identify how to respond to alarms and conduct a building search, and search inventory and impound vehicles. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0065 - Calls for Service

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to respond to calls for service, disturbances, people in distress and court orders. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0077 - Criminal Investigations

51 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond appropriately to a person or property crime victim, witness, and suspect; conduct a preliminary investigation on crimes against persons and crimes against property offenses; conduct a follow-up investigation to establish a suspect's identity and/or ascertain facts of the case; and, give testimony in different types of court proceedings. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0078 - Crime Scene to Courtroom

36 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond to a crime scene, protect and survey a crime scene, process a crime scene, dust for latent prints, and document a crime scene by sketching. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0084 - DUI Traffic Stops

33 Clock Hours (Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective DUI stops, including identifying a driver under the influence of alcohol and drugs, conducting field sobriety tests, and completing a DUI investigation. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0087 - Traffic Stops

30 Clock Hours (Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective traffic stops, including ethical consideration, safety considerations, citation and warning procedures, and dealing with abandoned vehicles. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0088 - Traffic Crash Investigations

33 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to traffic crash investigations, laws pertaining to traffic crashes and procedures for responding to a traffic crash. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0092 - Critical Incidents

45 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to identify the crowd control procedures to safely and effectively disperse or control a large group of people; understand local emergency response plans; respond to a bomb threat, assesses the scene, search and evacuate a building or suspected bomb sight, identify Weapons of Mass Destruction and properly respond to a WMD incident. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096A - Criminal Justice Physical Fitness I

31 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness

evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0096B - Criminal Justice Physical Fitness II

32 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0422 - Dart-Firing Stun Gun

9 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare students in the proper use of the Dart Firing Stun in accordance with the Florida State Statutes, the United States Constitution, and case law. It includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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Total Program Hours Required: 801

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Law Enforcement Officer (Basic) (CCP) LEOB

Fall Semester

CJK 0001 - Introduction to Law Enforcement **12 Clock Hours**

CJK 0012 - Legal **63 Clock Hours**

CJK 0013 - Interactions in a Diverse Community **42 Clock Hours**

CJK 0014 - Interviewing and Report Writing **54 Clock Hours**

CJK 0064 - Fundamentals of Patrol **36 Clock Hours**

CJK 0065 - Calls for Service **36 Clock Hours**

CJK 0077 - Criminal Investigations **51 Clock Hours**

CJK 0078 - Crime Scene to Courtroom **36 Clock Hours**

CJK 0020 - Law Enforcement CMS Vehicle Operations **48 Clock Hours**

CJK 0040 - CMS Firearms **81 Clock Hours**

CJK 0096A - Criminal Justice Physical Fitness I **31 Clock Hours**

CJK 0096B - Criminal Justice Physical Fitness II **32 Clock Hours**

CJK 0031 - CMS First Aid for Criminal Justice Officers **48 Clock Hours**

Total Semester Clock Hours: 549

Spring Semester

CJK 0092 - Critical Incidents **45 Clock Hours**

CJK 0087 - Traffic Stops **30 Clock Hours**

CJK 0084 - DUI Traffic Stops **33 Clock Hours**

CJK 0088 - Traffic Crash Investigations **33 Clock Hours**

CJK 0051 - Defensive Tactics **81 Clock Hours**

CJK 0422 - Dart-Firing Stun Gun **9 Clock Hours**

Total Semester Clock Hours: 252

Total Program Clock Hours: 801

Cyber Security

Associate in Science

Cyber Security (AS)

Admission Program Objective Code CYBE

State CIP Code 1511100307

Students who successfully complete selected courses from this program of study may be eligible to receive the Database and E-Commerce Security (CCC) certificate (State CIP Code 0511100311).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CAP 2134C - Database Security

3 Credit Hours
(Spring)

This course is designed to provide the student with an understanding of database security concepts and practices. The objective of the course is to provide hands-on instruction in various database tasks that relate to securing the confidentiality, integrity and availability of information that is stored in a database. The student will be able to perform administrative tasks in different database management systems, as well as manage database user profiles, privileges, and roles. Different database application security models will be explored, as will the security advantages of utilizing virtual private databases. Finally, the process of database auditing will be explored, including auditing methods using various database management systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 2660

▲ Technology-Across-the-Curriculum Course.

CET 2660 - Network Security

3 Credit Hours
(Fall, Spring)

This course provides an in-depth study of network security concepts and techniques. Students examine theoretical

concepts that make computer network security unique. This course provides a practical, hands-on approach when examining networking security techniques. Students examine different network strategies, explore the advancement of network implementation, and study timeless problem solving strategies. The course is also intended to assist with preparation for the CompTIA Security+ certification.

Prerequisite(s): Knowledge of networking basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2880C - Digital Forensics Fundamentals

3 Credit Hours
(Fall and Spring)

This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. the course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 2352C - Ethical Hacking Fundamentals

3 Credit Hours
(Fall)

This course is designed to provide the student with an understanding of the techniques and methodologies of security penetration testing. This course provides hands-on instruction using the various tools and methods that security professionals use to analyze an information system in order to discover vulnerabilities and protect against information loss, cyber-terrorism, and corporate espionage. The student will be introduced to fundamental security testing concepts, gain practical knowledge of computer programming, learn how to properly document a security test, and explore the legal and ethical ramifications of penetration testing. Students will also learn how to apply the appropriate countermeasures in order to reduce the risk that an organization faces.

Prerequisite(s): CTS 1134 is required. Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1106 - Fundamentals of UNIX

3 Credit Hours
(Spring)

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in administration and certification.

Prerequisite(s): Knowledge of networking, basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1134 - Network Foundations

3 Credit Hours
(Fall)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2314C - Network Defense and Countermeasures

3 Credit Hours
(Fall)

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure and implement secure networks. Security topics covered in this course include firewalls, Intrusion Detection Systems (IDS), Virtual Private Networks (VPN) and policy creation using the Windows Operating System (OS), Transmission Control Protocol/Internet Protocol (TCP/IP) packet and signature analysis. The student will get hands-on instruction installing the network defense mechanisms and countermeasure applications. Software will be used for collecting, monitoring and auditing various activities; students will analyze threats and intrusions.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

CET 1854C - Introduction to Wireless Technology

3 Credit Hours
(Fall)

This course teaches key wireless networking topics, including wireless technology and architecture network design, types of wireless networks, and applications. Special focus on technical matters, wireless communication products, wireless networking products, and wireless LANS products. It is recommended that all students have a least a basic knowledge of networking, including protocol, the OSI module, and TCIP/IP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2615C - LAN Switching and Wireless

3 Credit Hours
(Spring)

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study LAN Switching, VLANs, OSPF, EIGRP, VTP, classless routing and Access Lists.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2620C - Accessing the WAN

3 Credit Hours
(Spring)

This course introduces the student to advanced router configurations and network design. This is also the last of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study WAN technology and design, PPP, ISDN, Frame Relay, and network management.

Prerequisite(s): CET 2615C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2685C - Fundamentals of Network Security

3 Credit Hours
(Spring)

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CISCO Security Specialist certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2881C - Digital Forensics II

3 Credit Hours
(Spring)

Digital Forensics II builds upon the foundational knowledge learned in digital forensics fundamentals. Students will utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cell phones, smart phones, mp3 players, gps), and devices such as dvr's and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the accessdata certified examiner (ace) examination.

Prerequisite(s): CET 2880C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2891C - Wireless Network Security Certification

3 Credit Hours
(Offered as needed)

This course prepares students to secure wireless networks and protect valuable data from intruders. The following subjects are covered: intrusion tools and techniques, detection systems, WPA/WPA2/802.11i security, enterprise wireless gateways, encryption gateways, secure wireless bridging, and wireless VPN routers. This course prepares students for the compTIA wireless certification exam.

Prerequisite(s): CET 1854C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2892C - Advanced Network Security

**3 Credit Hours
(Spring)**

This course examines advanced network security topics including, but not limited to, advanced topics in integration of hardware firewalls, advanced topics in Intrusion Detection Systems (IDS), advanced topics in Internet Protocol-security (IPSec), and advanced topics in Virtual Private Networking (VPN) in network security design. Students will implement designs using equipment in a laboratory setting.

Prerequisite(s): CET 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2940 - Computer Engineering Internship

**1 Credit Hour
(Offered as needed)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CGS 2544 - Advanced Database Concepts

**3 Credit Hours
(Summer)**

The aim of this course is to explore advanced database concepts including an advanced exploration of data modeling and the design and implementation of relational databases. This course will extend the students' understanding of advanced principles and techniques used in the design and implementation of modern database systems and explore database problems and potential solutions.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Cyber Security (AS) (CYBE)
First Year
Fall Semester CET 2660 - Network Security 3 Credit Hours CTS 1134 - Network Foundations 3 Credit Hours CGS 2541 - Introduction to Database Concepts 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ General Education Course 3 Credit Hours Total Semester Hours: 15
Spring Semester CET 2880C - Digital Forensics Fundamentals 3 Credit Hours CTS 1106 - Fundamentals of UNIX 3 Credit Hours Science General Education Course 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester CTS 2314C - Network Defense and Countermeasures 3 Credit Hours CIS 2352C - Ethical Hacking Fundamentals 3 Credit Hours Social Science General Education 3 Credit Hours Mathematics General Education Course 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15

Spring Semester

COP 1000 - Introduction to Programming Concepts and Logic **3 Credit Hours**

CAP 2134C - Database Security **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Dental Assisting**Vocational Certificate****Dental Assisting (CCP)**

Admission Program of Study Code DENT

State CIP Code 0351060112

Basic Skills Requirements: The student must be exempt or attain a **10th grade level** on each section of the TABE exam: Math, Language and Reading.

This program is a Selective Admission program subject to additional program policies and requirements stipulated in the "Dental Assisting Student Handbook." The admission criteria and process, as well as some course numbers and credits are subject to change; students should contact the Dental Assisting program office for the most current information.

The program in dental assisting is accredited by the Commission on Dental Accreditation [*and has been granted the accreditation status of "approval with reporting requirements, with intent to withdraw August 2020"*]. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: <http://www.ada.org/en/coda>.

Students who successfully complete this program and pass the Dental Assisting National Board (DANB) Certificate (CDA) may apply 21 credits towards the Technical Elective requirements for the Health Services Management (AS) degree (State CIP Code 135070100).

Core Courses**DEA 0020 - Pre-Clinical Procedures Theory**

60 Clock Hours

(Offered as needed)

This course is designed to provide an introduction to the dental assisting profession to include orientation to four

handed dentistry and general dental office procedures including, but not limited to basic principles of disease prevention, patient data collection and assessment, and instrumentation. Emphasis is on adhering to safety guidelines as specified by OSHA.

Corequisite(s): DEA 0020L.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DEA 0020L - Pre-Clinical Practice Lab

90 Clock Hours
(Offered as needed)

This is a comprehensive chair side competency based course. The course provides the skills practice necessary for dental assisting students entering four handed dentistry practice including but not limited to infection control, taking and recording vital signs, assisting with operative procedures, principles of preventive dentistry, instrument identification, and use and maintenance of equipment. Emphasis is on aseptic technique and clinical competency with procedures performed in a contemporary dental practice.

Corequisite(s): DEA 0020, DES 0103L.

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DEA 0130 - Oral Pathology

30 Clock Hours
(Offered as needed)

This course is a general study of the scientific and clinical concepts that include additional knowledge base necessary to the practice of dental assisting. Students will study the normal and abnormal conditions of the oral cavity such as dental caries prevention, the dental caries process and recognition of various common pathological conditions. Oral pathology, histology and embryology are included. Emphasis is on the interrelationship of the information presented with the clinical practice of dental assisting.

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DEA 0803L - Clinical Practice I

150 Clock Hours
(Offered as needed)

This competency based clinical course provides a real world setting in which to integrate the laboratory and clinical skills learned in the classroom. The student receives closely supervised hands on training in chair side dental assisting through rotations at community dental offices. Progress is evaluated using predetermined competency guidelines. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 90 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Corequisite(s): DEA 0020, DEA 0020L.

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DES 0830 - Expanded Function Theory

30 Clock Hours
(Offered as needed)

This course introduces the dental assisting student to the dental specialty practices and more advanced clinical skills. It also provides the theory of dental specialty practice administration as it relates to the role of the dental assistant including ethical and legal ramifications. Lectures relate topics including but not limited to dental specialty procedures, instruments used in the specialty practices and duties delegated to dental assistants according to the rules and regulations of the Florida Dental Practice Act. Role playing and problem solving activities using case studies relate to duties delegated to dental assistants.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830L.

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DES 0830L - Expanded Functions Lab

60 Clock Hours
(Offered as needed)

This laboratory course accompanies the clinical practice lecture course DES 0830 and provides opportunity for students to practice application of the duties delegated to dental assistants according to the Florida Dental Practice Act. Students become more proficient in more advanced skills. Competencies containing information and behavioral objectives allow students to master each skill before advancing to the next.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830.

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awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DEA 0852L - Clinical Practice II

180 Clock Hours
(Offered as needed)

This course is a continuation of Clinical Practice I. It provides a real world setting for students to receive additional training in the clinical skills learned in class. Students are assigned to various offices in the community including but not limited to general dentists, oral surgeons, orthodontists, periodontists, and endodontists. Performance evaluations are utilized to measure competency and provide feedback from the local dental offices to the instructor regarding the students' competency level. Skills are strengthened in Seminar Lab. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 150 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Prerequisite(s): DEA 0803L, DES 0400

Corequisite(s): DES 0830, DES 0830L.

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DEA 0936 - Dental Assisting Seminar

60 Clock Hours
(Offered as needed)

This course is designed to provide a review of materials commonly covered on the Dental Assisting National Board (DANB) Exam. Topics include but are not limited to infection control, general chair side procedures, and radiographic technique. The seminar will provide a mock board examination, and opportunities for review, problem solving, and strengthening skills. The course also serves as an opportunity for feedback from students' Clinical Practice.

Prerequisite(s): DEA 0852L, DEA 0803L, DES 0205, DES 0205L

Corequisite(s): DEA 0803L, DES 0206L.

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DES 0103 - Dental Materials

60 Clock Hours
(Offered as needed)

This course is a comprehensive study of the theory of manipulation, physical and chemical properties of materials

used in the diagnosis, prevention and treatment of oral disease. The competency based lab that accompanies this course includes exercises to illustrate application and use of selected materials. Students will study various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, as well as acrylic plastics. Students will become familiar with various pieces of dental laboratory equipment and their uses.

Corequisite(s): DES 0103L, DEA 0020L.

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DES 0103L - Dental Materials Lab

90 Clock Hours
(Offered as needed)

This course is a comprehensive study of the manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. Emphasis is on practical application as it relates to the role of the dental assistant in the contemporary dental practice. It is a competency based lab that accompanies the theory course and includes exercises to illustrate application and uses of selected materials. Students practice the use of various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, and acrylic plastics.

Corequisite(s): DES 0103, DEA 0020L.

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DES 0205 - Dental Radiology I

60 Clock Hours
(Offered as needed)

This course is designed to introduce the theory, application and principles of radiographic exposure and processing techniques used in dentistry. Students will receive instruction including but not limited to historical data, radiation safety, exposure, processing, mounting and error prevention. Image interpretation of radiographic anatomical structures will be included.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205L.

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DES 0205L - Dental Radiology Laboratory I

60 Clock Hours
(Offered as needed)

This laboratory course assists students in radiographic performance techniques using DXTR manikins to achieve competency prior to exposure of various patients with varied dentitions. Students practice exposing, mounting, radiographic interpretation, safe darkroom procedures, identification of landmarks and distinguishing radiographic pathology from normal landmarks. Clinical radiographic skills necessary to produce diagnostic quality radiographs including bitewings, periapical radiographs, and panoramic x-rays will be covered. Emphasis is on patient and operator safety guidelines and producing diagnostic quality radiographs.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205.

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DES 0206 - Dental Radiology Theory II

30 Clock Hours
(Summer)

Students will learn to identify the normal landmarks of intraoral and extra oral images. They will also be able to demonstrate the ability to interpret x-rays and recognize and identify abnormalities on dental images. Students will learn how to discuss their finding with a dentist, without overstepping the boundaries of diagnosing, from a dental image. Students will be able to explain the differences in cancellous and cortical bone. Students will be able to use an x-ray to identify different restoration types and irregularities in those restorations. Students will be able to point and identify trauma, pulpal lesions and periapical lesions on an x-ray.

Prerequisite(s): DES 0400, DES 0205, DES 0205L, DEA0020, DEA0020L

Corequisite(s): DES 0206L

DES 0206L - Dental Radiology Laboratory II

30 Clock Hours
(Summer)

This laboratory course assists students in additional radiographic performance techniques to include surveys on patients with varied dentitions. Students practice advanced radiographic exposure techniques, interpretation, additional darkroom procedures, identification of landmarks and distinguishing various radiographic pathology. Clinical radiographic skills necessary to produce diagnostic quality x-rays including bitewing; radiographs, periapical radiographs, and panoramic surveys on actual patients are implemented. Emphasis is placed on patient and operator safety guideline and producing diagnostic quality radiographs. This course will involve live patients, scheduling appointments and presenting prescriptions for x-rays from local dentist.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L, DES 0205L

Corequisite(s): DES0206

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0324 - Interpersonal Communications Skills

30 Clock Hours
(Offered as needed)

This course is designed to implement interpersonal and effective communication skills in the practice of dentistry. It includes team building strategies, oral and written communications skills with the correct use of terminology commonly used in dentistry. Professionalism in verbal and nonverbal communications is emphasized. Students will be introduced to the legal and ethical scope of responsibilities for dental assistants and interpersonal relations in the dental office. Providing oral health instructions and post operative instructions for patients will be introduced. Scenario-based role playing is used to augment student learning of course content.

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DES 0400 - Dental Anatomy

90 Clock Hours
(Offered as needed)

This course provides a detailed study of the orofacial and related structures of the head and neck including, but not limited to the eruption, identification and function of the human dentition, study of bony, circulatory, muscular and nervous systems of the head, neck and surrounding structures associated with the oral cavity. A brief introduction to oral histology and embryology will be included.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0501 - Dental Practice Management

60 Clock Hours
(Offered as needed)

This course includes theory and content relating to practical administrative duties performed in the dental office. Lectures and role playing activities are related to the responsibilities of the dental assistant. Topics include but are not limited to appointment scheduling, billing, collections, record keeping, clerical and dental supply inventory. Students are introduced to the use of dental practice software with hands on computer experience. Legal responsibilities, interpersonal relations, and interview skills are included.

Prerequisite(s): DES 0205, DES 0205L

Corequisite(s): DEA 0936.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0602 - Pharmacology and Dental Office Emergencies

30 Clock Hours

(Offered as needed)

This course is designed to familiarize the dental assisting student with the basic concepts and considerations regarding pharmacology and pharmaceuticals used in dentistry. Topics presented include nitrous oxide monitoring, emergency procedures and protocol. Lectures will include recognition of emergency conditions in the dental office, not limited to syncope, anaphylaxis, and cardiovascular incidents. Emphasis is placed on the role of the dental assistant in the prevention and management of dental office emergencies.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0844 - Infection Control for Dental Assistants

30 Clock Hours

(Offered as needed)

This course is a general study in biomedical sciences of preventive dentistry to familiarize the dental assisting student with basic principles of microbiology, basic body structures, and their functions and effects as manifested in the oral cavity. The course also covers the effects of nutrition and the role of microorganisms in dental health and blood borne pathogens.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 1230

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Dental Assisting (CCP) (DENT)**Fall Semester**

DEA 0020 - Pre-Clinical Procedures Theory **60 Clock Hours**

DEA 0020L - Pre-Clinical Practice Lab **90 Clock Hours**

DES 0400 - Dental Anatomy **90 Clock Hours**

DES 0103 - Dental Materials **60 Clock Hours**

DES 0103L - Dental Materials Lab **90 Clock Hours**

DES 0324 - Interpersonal Communications Skills **30 Clock Hours**

DES 0844 - Infection Control for Dental Assistants **30 Clock Hours ***

Total Semester Clock Hours: 450

Spring Semester

DES 0830 - Expanded Function Theory **30 Clock Hours**

DES 0602 - Pharmacology and Dental Office Emergencies **30 Clock Hours**

DES 0830L - Expanded Functions Lab **60 Clock Hours**

DES 0205 - Dental Radiology I **60 Clock Hours**

DEA 0803L - Clinical Practice I **150 Clock Hours**

DES 0205L - Dental Radiology Laboratory I **60 Clock Hours**

DEA 0130 - Oral Pathology **30 Clock Hours**

Total Semester Clock Hours: 420

Summer Semester

DES 0206 - Dental Radiology Theory II **30 Clock Hours**

DES 0501 - Dental Practice Management **60 Clock Hours**

DEA 0936 - Dental Assisting Seminar **60 Clock Hours**

DES 0206L - Dental Radiology Laboratory II **30 Clock Hours**

DEA 0852L - Clinical Practice II **180 Clock Hours**

Total Semester Clock Hours: 360

Total Program Clock Hours: 1230
* DES0844 may be taken in Fall or Spring Semester

Digital Media/Multimedia Technology

College Credit Certificate

Digital Media/Multimedia Authoring (CCC)

Admission Program of Study Code DMMA

State CIP Code 0609070209

Students who successfully complete this diploma may be eligible to receive credits towards the Digital Media/Multimedia Technology (AS) degree (State CIP Code 1611080102).

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours

(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

CGS 2820 - Web Design

3 Credit Hours

(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours

(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 14

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Digital Media/Multimedia Authoring (CCC) (DMMA)
Fall Semester
PGY 1801C - Digital Photography I 4 Credit Hours
GRA 1151C - Illustration I 3 Credit Hours
Total Semester Hours: 7
Spring Semester
ART 2602C - Digital Imaging I 4 Credit Hours
CGS 2820 - Web Design 3 Credit Hours
Total Semester Hours: 7
Total Program Credits: 14

Early Childhood Education

Associate in Science

Early Childhood Education (AS)

Offered Online

**Admission Program Objective Code ECED
State CIP Code 1413121004**

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Child Development Early Intervention (CCC) (State CIP Code 0419070904), Child Care Center Management Specialization (CCC) (State CIP Code 0419070906), Infant/Toddler Specialization (CCC) (State CIP Code 0419070907), and/or Preschool Specialization (CCC) (State CIP Code 0419070908).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

DEP 2100 - Child Growth and Development

**3 Credit Hours
(Fall, Spring, Summer)**

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EDF 1005A - Introduction to the Teaching Profession - A

**3 Credit Hours
(Fall, Spring, Summer)**

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. This course is intended for those students that are not planning to enter a degree program leading to teacher certification. An additional fingerprinting cost may be associated with this course. If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

EEC 1001 - Introduction to Early Childhood Education

**3 Credit Hours
(Fall)**

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1401 - The Family In Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours

(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Early Childhood Education (AS) (ECED)	Companion Certificates*			
	CDEI	CCCM	CITS	CCPS
First Year				
Fall Semester				
EEC 1001 - Introduction to Early Childhood Ed 3 Credit Hours	√	√	√	√
EEC 1309 - Early Childhood Education Foundations 3 Credit Hours	√	√		√
EEC 1201 - Infants and Toddlers 3 Credit Hours	√		√	
EEX 2010 - Introduction to Exceptional Children 3 Credit Hours	√			
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶				
Total Semester Hours: 15				
Spring Semester				
DEP 2100 - Child Growth and Development 3 Credit Hours	√	√	√	√
EEC 1949 - Internship, Early Childhood Education 3 Credit Hours	√		√	√
EEC 1401 - The Family In Early Childhood Education 3 Credit Hours				
Mathematics General Education - 3 Credit Hours				

Total Semester Hours: 12				
Summer Semester Science General Education - 3 Credit Hours Humanities General Education - 3 Credit Hours Total Semester Hours: 6				
Second Year				
Fall Semester EEC 1601 - Assessment in Early Childhood Education 3 Credit Hours EEC 2732 - Child Nutrition, Health and Safety 3 Credit Hours EEC 1750 - Guidance for Young Children 3 Credit Hours EEC 2220 - Language and Literacy Instruction In Early Childhood Education 3 Credit Hours Additional General Education Credits - 3 Credit Hours Total Semester Hours: 15	√ √ √ √			
Spring Semester EEC 1002 - Early Childhood Program Administration 3 Credit Hours EDF 1005A - Introduction to the Teaching Profession - A 3 Credit Hours EEC 2222 - Math & Sci Instruction Early Child Ed 3 Credit Hours Social Science General Education - 3 Credit Hours Total Semester Hours: 12	√ √ √	√		
Total Program Hours: 60				
* Courses with √ can also be used in the Companion Certificate indicated: CDEI - Child Development Early Intervention (CCC) CCCM - Child Care Center Management Specialization (CCC) CITS - Infant/Toddler Specialization (CCC) CCPS - Preschool Specialization (CCC)				

College Credit Certificate

Child Care Center Management Specialization (CCC)

Admission Program of Study Code CCCM

State CIP Code 0419070906

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours

(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours

(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours

(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours

(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

Total Program Credits Required: 12

Child Development Early Intervention (CCC)

**Admission Program of Study Code CDEI
State CIP Code 0419070904**

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

**3 Credit Hours
(Fall, Spring, Summer)**

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1001 - Introduction to Early Childhood Education

**3 Credit Hours
(Fall)**

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

**3 Credit Hours
(Fall, Spring, Summer)**

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

**3 Credit Hours
(Fall, Spring, Summer)**

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

**3 Credit Hours
(Fall, Summer, Spring)**

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children.

Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Total Core Credits Required: 36

Total Program Credits Required: 36

Infant/Toddler Specialization (CCC)

Admission Program of Study Code CITS
State CIP Code 0419070907

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

Total Core Credits Required: 12

Total Program Credits Required: 12

Preschool Specialization (CCC)

Admission Program of Study Code CCPS
State CIP Code 0419070908

Students who successfully complete this certificate may be eligible to receive credits towards the Early Childhood Education A.S. degree (State CIP Code 1413121004).

Core Courses

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

Total Core Credits Required: 12

Total Program Credits Required: 12

Emergency Administration and Management

Associate in Science

Fire Science Technology (AS)

Admission Program of Study Code FSCI

State CIP Code 1743020112

****This program closed for admissions as of spring 2020.****

The Fire Science Technology Associate in Science degree program offers students a sequence of courses designed to provide relevant technical knowledge needed to prepare students for entry or advancement in the fire service or in a related fire protection field. A technical certificate, Fire Officer Supervisor (6455) (T.C.), is included as an option within this degree program. Students may pursue the A.S. degree and earn the technical certificate while completing the requirements for the degree, or pursue the certificate to develop or upgrade their skills. Contact an advisor or counselor to determine the career education path that is best for you.

Career Opportunities

In addition to community fire departments, there are opportunities in government installations such as airports, as well as private fire-fighting companies. There is also a need for inspectors, investigators, forest rangers and smoke jumpers. In all cases, employment is based on high test scores and outstanding skills.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

FFP 1505 - Fire Prevention Practices

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1540 - Private Fire Protection Systems

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention

inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1810 - Firefighting Tactics and Strategy I

3 Credit Hours
(Fall, Spring, Summer)

This course is a study of the principles utilized on the fire ground for maximum manpower and equipment utilization; fire ground administration starting with a small fire on up through major conflagrations. Emphasis will be on developing thinking skills in relation to crises.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2120 - Fire Service Building Construction

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2720 - Company Officer

3 Credit Hours
(Fall, Spring, Summer)

Designed to assist fire officers in solving the varied problems and situations they will be required to manage effectively in today's ever changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation, and small group dynamics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2780 - Fire Department Administration

3 Credit Hours
(Fall, Spring, Summer)

The course is designed to present the principles of management theory, and its application in the fire service. The course is intended for officers whose area of responsibility encompasses long and short range planning, budgeting and administration.

Prerequisite(s): FFP 0010 and FFP 0020

Total Core Credits Required: 30

Technical Elective Courses

Select 15 credits from the following:

(Contains 15 hours articulation for Firefighter/Emergency Medical Technician-Combined (CCP))

EMS 1119C - Emergency Medical Technician

6 Credit Hours

(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

And

EMS 1401L - EMT Lab

6 Credit Hours

(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

DSC 1004 - Introduction to NRF and NIMS

3 Credit Hours

(Offered as needed)

Designed to inform emergency responders and planners of the key elements in the National Response Framework (NRF) and the National Incident Management System (NIMS) and their relationship to planning and response operations. The curriculum includes classroom exercises.

DSC 1250 - Unmanned Vehicles Fundamentals for Disaster Management

3 Credit Hours

(Spring)

This course examines the protocol and interagency support concepts for the utilization of unmanned vehicles in preparation and response of catastrophic events. Students will be introduced to the development of an emergency response plan which will include unmanned vehicle concepts such as observation, communications, safety, training, and also integration between Public safety agencies.

DSC 1631 - Planning Considerations for Terror Prevention

3 Credit Hours
(Offered as needed)

This course introduces participants to various aspects of planning for potential terrorist activity. The student will be introduced to basic principles of emergency management, communications, security threats, and the effects these operations may have on personnel. The student will learn techniques for evaluating their own jurisdiction's vulnerability against terrorist attacks. Students will gain knowledge of the roles and responsibilities of local agencies during terrorism responses. The course introduces participants to various aspects of emergency management of terrorist activity.

DSC 1751 - Homeland Security Policy and Law

3 Credit Hours
(Offered as needed)

This course introduces participants to the major debates about balancing democratic freedoms with security from the Patriot Act to Supreme Court decisions on detention powers. The course provides insight into legal strategies necessary to confront ongoing national security threats. The course examines laws designed to preserve both our security and our democratic way of life.

DSC 2056 - Disaster Response Operations

3 Credit Hours
(Offered as needed)

This course examines the response protocol, logistics, responsibilities, interagency support, and concepts of front end planning involved in preparation for a catastrophic event. Students will be introduced to the development of an emergency response plan that will include concepts such as lookout, awareness, communications, escape, safety (laces), training, and various agency relationships.

DSC 2900 - Development of Unmanned Vehicle Applications

3 Credit Hours
(Fall, Spring, Summer)

Students complete a project that demonstrates excellence by applying the knowledge of unmanned drones gained from the public safety core courses. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

EMS 2350 - Unmanned Vehicles Applications and Operations for EMS

3 Credit Hours
(Summer)

This course examines the response of Emergency Medical Services to unsecure scenes with the aid of unmanned vehicles. Students will explore EMS protocols for the utilization of unmanned vehicles in catastrophic events with mass casualties requiring triage and multiple agency responses. Participants will be introduced to the concepts of the utilization of unmanned vehicles for support during large scale public events such as; conventions, festivals, athletic events, protest, and special team support.

FFP 1691 - Fundamentals of Firefighting & Unmanned Vehicles

3 Credit Hours
(Summer)

Course introduces the fundamentals of unmanned vehicle applications for firefighting with prioritization of manpower and equipment utilization. Fire officers explore the use of unmanned vehicles for fire ground commanders for tactical operations for all levels of fire. Emphasis for fire investigators on utilization of unmanned vehicles in the investigation process. Course introduces determination of fire cause and origin with collection of evidence by unmanned vehicles during fire scene investigation. Participants will explore the use unmanned vehicles for planning, responding, and evaluating HAZMAT incidents.

FFP 1826 - Incident Management

3 Credit Hours
(Offered as needed)

This course contrasts the major forms of Incident Management/Incident Command Systems. It illuminates these differences and offers a fresh perspective on the concepts on which these systems are founded in order to make them more accessible and user-friendly. It bridges the gap between their theoretical and academic foundations and their real-world applications, and makes them more applicable to the professional's daily needs.

FFP 2692 - Unmanned Vehicles Applications and Search & Rescue

3 Credit Hours
(Fall)

This course examines the utilization of unmanned vehicles by public safety in various search and rescue operations. Students will be introduced to the utilization of unmanned vehicles during searches for suspects eluding capture. Course will examine the response protocol and interagency support utilizing unmanned vehicles in urban, water, and various terrain search and rescue operations. Students will be introduced to the operations of unmanned vehicles for silver and amber alerts.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 63

College Credit Certificate

Fire Officer Supervisor (CCC)

Admission Program of Study Code FSUP

State CIP Code 0743020111

****This program closed for admissions as of spring 2020.****

Earning this certificate increases management skills for professionals employed as Fire Fighters. The purpose of this certificate is to prepare students for employment as Firefighting and Prevention Supervisors to supervise Fire Fighters who control and extinguish fires, protect life and property, and conduct rescue efforts. The program

is beneficial to professionals seeking career field enhancement. This program does not prepare students for certification as Fire Fighters. A student must successfully complete the basic recruit program in firefighting to become certified, pursuant to Chapter 633, Florida Statutes. This program does not complete the requirements to be eligible to sit for Bureau of Fire Standards and Training (BFST) certification exams. A student must contact the Bureau of Fire Standards and Training (BFST) for additional requirements.

Core Courses

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

Total Program Credits Required: 12

Vocational Certificate

Firefighter I/II (CCP)

Admission Program of Study Code FIRN

State CIP Code 0743020303

Entry into the Firefighting Certificate Program requires meeting the standards established by the Florida Division of State Fire Marshal, Bureau of Fire Standards and Training. A copy of these requirements is available through the Public Safety Division of NWF State College.

Core Courses

FFP 0010 - Firefighting I

206 Clock Hours

(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours

(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 398

Corequisite Course

FFP 0077 - First Responder for Public Safety Personnel

45 Clock Hours
(Fall, Spring, Summer)

This course trains public safety members who are the first to arrive at an emergency in providing efficient and accurate pre-hospital care. Students assess patients for wounds to determine if trauma, shock, burns or closed airways are a problem and how to address those issues by dressing wounds, stabilizing the person or administering oxygen. They immobilize patients and address common emergency medical issues with basic treatments. This course includes hands-on, practical experience and is necessary to be eligible for first responder certification.

This course is a co-requisite course for students entering the Firefighting Certificate program who do not have certification for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Fire Fighter (Basic) (CCP) (FIRE)
Fall Semester FFP 0010 - Firefighting I 206 Clock Hours FFP 0020 - Firefighting II 192 Clock Hours FFP 0077 - First Responder for Public Safety Personnel 45 Clock Hours * Total Semester Clock Hours: 398
Total Program Hours: 398
* FFP0077 is a program corequisite unless student is a First Responder, Paramedic or EMT

Firefighter/Emergency Medical Technician-Combined (CCP)

**Admission Program of Study Code FIEM
State CIP Code 0743020312**

Basic Skills Requirements: The student must be exempt or attain a **10th grade level** on each section of the TABE exam: Math, Language and Reading.

Entry into the Firefighter/Emergency Medical Technician-Combined Program requires meeting the standards established by the Florida Division of State Fire Marshal, Bureau of Fire Standards and Training. A copy of these requirements is available through the Public Safety Division of NWF State College.

Firefighters are trained to extinguish and control fires in response to situations where property, life, or the environment is in danger. At the scene of an emergency, firefighters perform tasks assigned by their commanding officer. Depending on the situation, they may need to provide medical attention, break through debris, operate fire hoses, or enter a burning building. Firefighters are often first responders to car accidents, heart attack scenes, and other medical emergencies that do not involve fire.

Graduates of this program will be eligible to apply for the examinations to become both a Florida Certified Emergency Medical Technician/National Registry Emergency Medical Technician Basic and Florida Fire Standards. This will allow graduates to obtain employment as a firefighter EMT after 2 semesters of training.

The Firefighter/EMT Certificate program is two semester program that consists of Firefighter standards and EMT training. Applicants to this program must have a high school diploma or GED and meet other applicable admission criteria. If the number of qualified applicants to the program exceeds the number of openings, students will be accepted using a combination of application points. Contact the Emergency Services Office at (850) 729-5378 for additional information.

Core Courses

EMS 0119 - Emergency Medical Technician for Firefighters

**140 Clock Hours
(Fall, Spring, Summer)**

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director

Corequisite(s): FFP 0010, FFP 0020, EMS 0119L

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 0119L - Emergency Medical Technician Lab for Firefighters

160 Clock Hours
(Fall, Spring, Summer)

This course provides an integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director.

Corequisite(s): FFP 0010, FFP 0020, EMS 0119

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0010 - Firefighting I

206 Clock Hours
(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the

awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 698

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Firefighter/Emergency Medical Technician-Combined (CCP)
Fall Semester
FFP 0010 - Firefighting I 206 Clock Hours
FFP 0020 - Firefighting II 192 Clock Hours
Total Semester Clock Hours: 398
Spring Semester
EMS 0119 - Emergency Medical Technician for Firefighters 140 Clock Hours
EMS 0119L - Emergency Medical Technician Lab for Firefighters 160 Clock Hours
Total Semester Clock Hours: 300
Total Program Clock Hours: 698

Emergency Medical Services

Associate in Science

Emergency Medical Services (AS)

Admission Program Objective Code EMSR

State CIP Code 1351090402

This curriculum forms the last stage of a career ladder program progression from Emergency Medical Technician (CCC) (State CIP Code 0351090415) to Paramedic (CCC) (State CIP Code 0351090405) to Emergency Medical Services (AS) degree.

Students interested in pursuing this program must have a current and active Florida Bureau of Emergency Medical Services EMT/Paramedic licensure. Contact the Emergency Services/Paramedic program at (850) 729-5378 for more information.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

*** BSC 2020C (from Paramedic Core) may be used to meet GE Science.**

EMT Certificate Courses

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

Total EMT Credits Required: 12

Paramedic Certificate Core Courses

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

DSC 2055 - Issues in Disaster Response

1 Credit Hour
(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

EMS 1335 - Emergency Vehicle Operators Course

1 Credit Hour
(Offered as needed)

Students receive basic education and information on the safe and effective operation of emergency vehicles.

Prerequisite(s): permission of the EMS Program Director.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

**5 Credit Hours
(Spring)**

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

**2 Credit Hours
(Spring)**

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

**1 Credit Hour
(Offered as needed)**

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2425L - Paramedic Externship

**4 Credit Hours
(Spring)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

**5 Credit Hours
(Fall)**

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

**5 Credit Hours
(Spring)**

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

**2 Credit Hours
(Offered as needed)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

**1 Credit Hour
(Offered as needed)**

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour

(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour

(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

HSC 1531 - Medical Terminology

3 Credit Hours

(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Paramedic Credits Required: 43

Total Program Credits Required: 73

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Emergency Medical Services (AS) (EMSR)	Companion Certificates*	
First Year	EMTB	EMPM
Summer Semester EMS 1119C - Emergency Medical Technician 6 Credit Hours EMS 1335 - Emergency Vehicle Operators Course 1 Credit Hour EMS 1401L - EMT Lab 6 Credit Hours HSC 1531 - Medical Terminology 3 Credit Hours Total Semester Hours: 16	√ √ √	√
Fall Semester BSC 2020C - Human Structure and Function 4 Credit Hours EMS 2231C - Paramedic Processes I 5 Credit Hours EMS 2435L - Paramedic Lab I 5 Credit Hours EMS 2552 - Advanced Cardiac Life Support (ACLS) 1 Credit Hour EMS 1337 - Defensive Tactics 1 Credit Hour Total Semester Hours: 16		√ √ √ √ √
Spring Semester EMS 2232C - Paramedic Processes II 5 Credit Hours EMS 2436L - Paramedic Lab II 5 Credit Hours EMS 2526 - Twelve-Lead EKG Interpretation 1 Credit Hour EMS 2553 - Pediatric Advanced Life Support (PALS) 1 Credit Hour EMS 2555 - International Trauma Life Support (ITLS) 1 Credit Hour Elective - CCJ, EMS, FFP - 3 Credit Hours Total Semester Hours: 16		√ √ √ √ √
Second Year		

Summer Semester		
EMS 2438C - Advanced Clinical Internship 2 Credit Hours		√
EMS 2233 - Paramedic Processes III 2 Credit Hours		√
EMS 2425L - Paramedic Externship 4 Credit Hours		√
EMS 2342 - Advanced Extrication 1 Credit Hour		√
DSC 2055 - Issues in Disaster Response 1 Credit Hour		√
General Education Course - 3 Credit Hours		
Total Semester Hours: 13		
Fall Semester		
General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
General Education Course - 3 Credit Hours		
Total Semester Hours: 12		
Total Program Hours: 73		
* Courses with √ can also be used in the Companion Certificate indicated: EMTB - Emergency Medical Technician (Basic) (CCC) EMPM - Paramedic (CCC)		

College Credit Certificate

Emergency Medical Technician (CCC)

Admission Program of Study Code EMTN

State CIP Code 0351090415

Admission will be through a Limited Access application process. Graduates of this program will be eligible to apply for the examination to become a Florida certified Emergency Medical Technician and a National Registry Emergency Medical Technician Basic. Students interested in pursuing this program should contact the Emergency Medical Services Office at (850) 729-5378.

Students who successfully complete this certificate may be eligible to receive credits towards the Emergency Medical Services (AS) degree (State CIP Code 1351090402).

Core Courses

EMS 1119C - Emergency Medical Technician

6 Credit Hours

(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1401L - EMT Lab

6 Credit Hours

(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

Total Program Credits Required: 12

Paramedic (CCC)

Admission Program Objective Code EMPM

State CIP Code 0351090405

Admission will be through a Limited Access application process. Graduates will be eligible to sit for the Paramedic certification exam. The curriculum forms the core of the Emergency Medical Services A.S. degree (State CIP Code 1351090402). Students may "add on" general education credits and some college credit electives to the Paramedic certificate and earn the A.S. degree. Students interested in pursuing this program should contact the Emergency Medical Services Office (850) 729-5378.

Core Courses

BSC 2020C - Human Structure and Function

4 Credit Hours

(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

OR BSC 1085C - Anatomy and Physiology I **4 Credit Hours** ♦ AND BSC 1086C - Anatomy and Physiology II **4 Credit Hours**

DSC 2055 - Issues in Disaster Response

1 Credit Hour
(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

5 Credit Hours
(Spring)

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

**2 Credit Hours
(Spring)**

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

**1 Credit Hour
(Offered as needed)**

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2425L - Paramedic Externship

**4 Credit Hours
(Spring)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

**5 Credit Hours
(Fall)**

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

**5 Credit Hours
(Spring)**

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

**2 Credit Hours
(Offered as needed)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

**1 Credit Hour
(Offered as needed)**

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

**1 Credit Hour
(Offered as needed)**

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour
(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour
(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 42

Engineering Technology

Associate in Science

Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS)

Admission Program Objective Code ETDM
State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the four specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, and Digital Manufacturing with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007), Digital Manufacturing Specialist (CCC) (State CIP Code 0615000009), and Rapid Prototyping Specialist (CCC) (State CIP code 0615000012) certificates.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ◆
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) (ETDM)		Companion Certificates*		
First Year	ETTS	DMFS	RAPP	
Fall Semester				
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶				
ETI 1710 - Occupational Safety 3 Credit Hours				
SLS 2505 - Critical Thinking 3 Credit Hours	√	√		
ETD 1320C - AutoCAD I 3 Credit Hours		√		

EET 1084C - Introduction to Electronics 3 Credit Hours			
Total Semester Hours: 15			
Spring Semester			
MAC 1105 - College Algebra 3 Credit Hours ♦	√		
ENC 2210 - Technical Report Writing 3 Credit Hours	√		
ETM 1005C - Basic Mechanical Operations 3 Credit Hours		√	
ETD 2150 - Industrial Print Reading 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Second Year			
Fall Semester			
PHY 1020 - Physical Science 3 Credit Hours ♦		√	√
ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours	√		
ETI 1420 - Prop of Materials/Cutting Tools 3 Credit Hours - Online Only			
Technical Elective 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Spring Semester			
ETI 2110 - Total Quality Tools 3 Credit Hours		√	√
PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶		√	
Social Science 3 Credit Hours	√		
Technical Elective 3 Credit Hours			
Technical Elective 3 Credit Hours			
Total Semester Hours: 15			
Total Program Hours: 60			

* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC) DFMS - Digital Manufacturing Specialist (CCC) RAPP - Rapid Prototyping Specialist (CCC)			

Engineering Technology - Electronics Specialization Option (AS)

Admission Program Objective Code ETES

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the five specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, Digital Manufacturing and Electronics with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hours core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing

environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Required Courses

EET 1015C - Electricity/Electronics I, DC Circuits

3 Credit Hours
(Fall, Spring)

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

3 Credit Hours
(Fall, Spring)

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

EET 1141C - Solid State Electronics

3 Credit Hours
(Fall, Spring)

This is the third course required for Electronics Aide certificate. This course introduces the student to the concept, components, and uses of solid state electronics. Topics include semiconductor devices; thyristors and diodes, transistors, amplifiers, power supplies, oscillators, and optoelectronics. The use of capacitors and inductors in solid state electronics will be also covered. The design, set-up, and troubleshooting solid state circuits and devices using various power supplies and function generators will be dispersed throughout the class.

Prerequisite(s): EET 1025C

EET 1180C - Industrial Electronic Troubleshooting

3 Credit Hours
(Fall, Spring)

This course covers troubleshooting procedures for a variety of electronic equipment and circuits common to industrial applications. The student will develop and implement trouble shooting protocols and plans, equipment monitoring plans, a preventive maintenance plan, and select appropriate test and monitoring equipment. Safety in an industrial setting will be stressed and reinforced through a series of lab exercises throughout the course.

Prerequisite(s): EET 1084C

EET 2155C - Linear Integrated Circuits

3 Credit Hours
(Fall, Spring)

This course covers the fundamentals and applications of linear integrated circuits and operational amplifiers. The course covers includes inverting and non-inverting amplifiers, comparators, signal generators, differential and instrumentation amplifiers, operational amplifier specifications, active filters, modulator-demodulator integrated circuits, timers, analog to digital converters (ADC), and digital to analog converters (DAC) and measurement and analysis of linear circuits and devices.

Prerequisite(s): EET 1015C, EET 1025C

Total Technical Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Electronics Specialization Option (AS) (ETES)	Companion Certificate*
First Year	ETSS
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ ETI 1710 - Occupational Safety 3 Credit Hours - Offered Online Only SLS 2505 - Critical Thinking 3 Credit Hours ETD 1320C - AutoCAD I 3 Credit Hours EET 1084C - Introduction to Electronics 3 Credit Hours -Offered at Night Only Total Semester Hours: 15	 √ √
Spring Semester MAC 1105 - College Algebra 3 Credit Hours ♦	 √

ENC 2210 - Technical Report Writing 3 Credit Hours ETM 1005C - Basic Mechanical Operations 3 Credit Hours EET 1015C - Electricity/Electronics I, DC Circuits 3 Credit Hours - Offered at Night Only ETD 2150 - Industrial Print Reading 3 Credit Hours Total Semester Hours: 15 Second Year	√
Fall Semester PHY 1020 - Physical Science 3 Credit Hours ♦ EET 1180C - Industrial Electronic Troubleshooting 3 Credit Hours ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Online Only EET 1025C - Electricity/Electronics II, AC Circuits 3 Credit Hours - Offered at Night Only ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours Total Semester Hours: 15	√
Spring Semester ETI 2110 - Total Quality Tools 3 Credit Hours PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶ Social Science 3 Credit Hours EET 1141C - Solid State Electronics 3 Credit Hours EET 2155C - Linear Integrated Circuits 3 Credit Hours Total Semester Hours: 15	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC)	

Engineering Technology - Maintenance Technician Specialization Option (AS)

Admission Program Objective Code ENMT
State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. Instruction in electrical/electronic principles, basic mechanic fundamentals, robotics and machine repair prepare the student to meet the demands and develop the skills required to maintain and troubleshoot high-tech manufacturing equipment. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality. Candidates interested in this program should be interested in working with their hands and enjoy the challenges of programming and troubleshooting electrical and mechanical equipment.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected core courses from this program of study may be eligible to receive the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007) certificate.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear,

quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ◆
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking

skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Required Courses

EEL 2603C - Robotics-Mechanics and Controls

**3 Credit Hours
(Fall)**

This course introduces the student to robotics. Instructional topics will include robot classifications, applications, Input/Output (I/O) and sensor interfacing.

Prerequisite(s): ETS 1542C

EET 1015C - Electricity/Electronics I, DC Circuits

**3 Credit Hours
(Fall, Spring)**

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

**3 Credit Hours
(Fall, Spring)**

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

ETM 1315C - Hydraulics & Pneumatics Fundamentals

**3 Credit Hours
(Spring)**

This course introduces the student to basic hydraulic and pneumatic fundamentals. Instructional topics will include components, fluid pressure and flow and basic circuit design and application.

ETS 1542C - Introduction to Programmable Logic Controllers

**3 Credit Hours
(Fall)**

This is an introductory course in Programmable Logic Controllers (PLCs.) The student will learn basic concepts with a focus on programming and practical applications.

Prerequisite(s): EET 1084C

Total Technical Credits Required: 15**Suggested Two Year Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Maintenance Technician Specialization Option (ENMT)	Companion Certificate*
First Year	ETSS
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ ETI 1710 - Occupational Safety 3 Credit Hours SLS 2505 - Critical Thinking 3 Credit Hours ETD 1320C - AutoCAD I 3 Credit Hours EET 1084C - Introduction to Electronics 3 Credit Hours Total Semester Hours: 15	
Spring Semester MAC 1105 - College Algebra 3 Credit Hours ♦ ENC 2210 - Technical Report Writing 3 Credit Hours ETM 1005C - Basic Mechanical Operations 3 Credit Hours ETD 2150 - Industrial Print Reading 3 Credit Hours EET 1015C - Electricity/Electronics I, DC Circuits 3 Credit Hours Total Semester Hours: 15	
Second Year	
Fall Semester PHY 1020 - Physical Science 3 Credit Hours ♦ ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours ETI 1420 - Properties of Materials and Processes 3 Credit Hours EET 1025C - Electricity/Electronics II, AC Circuits 3 Credit Hours	 √ √

ETS 1542C - Introduction to Programmable Logic Controllers 3 Credit Hours	
Total Semester Hours: 15	
Spring Semester	
ETI 2110 - Total Quality Tools 3 Credit Hours	
PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶	√
Social Science General Education 3 Credit Hours	
EEL 2603C - Robotics-Mechanics and Controls 3 Credit Hours	
ETM 1315C - Hydraulics & Pneumatics Fundamentals 3 Credit Hours	
Total Semester Hours: 15	
Total Program Credits: 60	
* Courses with √ can also be used in the Companion Certificate indicated: ETSS - Engineering Technology Support Specialist (CCC)	

Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS)

Admission Program Objective Code ETMD

State CIP Code 1615000001

The purpose of this program is to prepare students for employment or provide additional training for persons previously or currently employed in the manufacturing, electronics, aerospace, or other related industries. This degree is a planned sequence of instruction consisting of the four specializations: Mechanical Design and Fabrication, Digital Design and Modeling, Advanced Technology, and Digital Manufacturing with one common core. It is recommended that students complete the core before advancing to the courses in the next level of specialization. The coverage includes communication skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to support engineering design, processes, production, testing, and product quality.

The 18 credit hour core has been aligned with the Manufacturing Skills Standards Council's (MSSC) skills standards. The MSSC skill standards define the knowledge, skills, and performance needed for positions in manufacturing. After completing this core and the General Education requirements, the students will be eligible to take the exam for the MSSC Production Technician Certification.

Students who successfully complete selected courses from this program of study may be eligible to receive the CNC Machinist/Fabricator (CCC) (State CIP Code 0615080502), the Engineering Technology Support Specialist (CCC) (State CIP Code 0615000007).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading

achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

_____ Social Sciences **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance,

find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2905 - Independent Study – Drafting

1 Credit Hour
(Fall, Spring, Summer)

Practical treatment of special geometry, graphics, and design with emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing.

Prerequisite(s): EGN 1111C and ETD 1112 or permission of instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

* This course may be taken up to four times for credit.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

ETI 2419C - Advanced Concepts of CNC Machines and CNC Machining Practices

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with advanced concepts in CNC machines and CNC machining to include: theory, operation, setup, safety, and practices.

Prerequisite(s): PMT 2261C or PMT 2262C

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two-Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology - Mechanical Design and Fabrication Specialization Option (AS) (ETMD)		Companion Certificate*	
First Year		CNMM	ETSS
Fall Semester ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ ETI 1710 - Occupational Safety 3 Credit Hours SLS 2505 - Critical Thinking 3 Credit Hours ETD 1320C - AutoCAD I 3 Credit Hours EET 1084C - Introduction to Electronics 3 Credit Hours Total Semester Hours: 15		√	√
Spring Semester ETD 2150 - Industrial Print Reading 3 Credit Hours ENC 2210 - Technical Report Writing 3 Credit Hours ETM 1005C - Basic Mechanical Operations 3 Credit Hours MAC 1105 - College Algebra 3 Credit Hours ♦ Technical Elective 3 Credit Hours Total Semester Hours: 15			√ √
Second Year			
Fall Semester ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Online Only ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours PHY 1020 - Physical Science 3 Credit Hours ♦ Technical Elective 3 Credit Hours Technical Elective 3 Credit Hours Total Semester Hours: 15		√	√ √
Spring Semester			

PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶		√
ETI 2110 - Total Quality Tools 3 Credit Hours		
Social Science General Education 3 Credit Hours	√	
Technical Elective 3 Credit Hours		
Technical Elective 3 Credit Hours		
Total Semester Hours: 15		
Total Program Hours : 60		
* Courses with √ can also be used in the Companion Certificate indicated: CNMM - CNC Machinist/Fabricator (CCC) ETSS - Engineering Technology Support Specialist (CCC)		

College Credit Certificate

CNC Machinist/Fabricator (CCC)

Admission Program of Study Code CNMM

State CIP Code 0648051002

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS) degree (State CIP Code 1615000001).

Core Courses

ETD 2364C - SolidWorks I

3 Credit Hours

(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours

(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC

machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

CNC Machinist/Fabricator (CCC) (CNMM)
First Year
Fall Semester
ETD 2364C - SolidWorks I 3 Credit Hours
PMT 1250C - Introduction to CNC Machining 3 Credit Hours - Offered at Night Only
Total Semester Hours: 6
Spring Semester

PMT 2261C - CNC Machining I **3 Credit Hours - Offered at Night Only**

Total Semester Hours: 3

Second Year

Fall Semester

PMT 2262C - CNC Machining II **3 Credit Hours - Offered at Night Only**

Total Semester Hours: 3

Total Program Hours: 12

Digital Manufacturing Specialist (CCC)

Admission Program of Study Code DMFS

State CIP Code 0615000009

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) degree (State CIP Code 1615000001).

Core Courses

ETD 2357C - Inventor I

3 Credit Hours

(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours

(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Total Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Digital Manufacturing Specialist (CCC) (DMFS)
Fall Semester ETD 2357C - Inventor I 3 Credit Hours ETD 2364C - SolidWorks I 3 Credit Hours PMT 1203C - Introduction to Machining 3 Credit Hours - Offered at Night Only PMT 1250C - Introduction to CNC Machining 3 Credit Hours Total Semester Hours: 12
Spring Semester PMT 2261C - CNC Machining I 3 Credit Hours Offered at Night Only ETD 2371C - 3D Printing I 3 Credit Hours Total Semester Hours: 6
Summer Semester PMT 2262C - CNC Machining II 3 Credit Hours Offered at Night Only ETD 2372C - 3D Printing II 3 Credit Hours

Total Semester Hours: 6
Total Program Hours: 24

Engineering Technology Support Specialist (CCC)

Admission Program of Study Code ETSS

State CIP Code 0615000007

Students who successfully complete this certificate may be eligible to receive credits towards one of the Engineering Technology (AS) degree (State CIP Code 1615000001) specializations: Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) or Engineering Technology - Mechanical Design & Fabrication Specialization Option (AS) , Engineering Technology - Electronics Specialization Option (AS) , Engineering Technology - Maintenance Technician Specialization Option (AS) .

Core Courses

EET 1084C - Introduction to Electronics

3 Credit Hours

(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ETD 1320C - AutoCAD I

3 Credit Hours

(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETI 2110 - Total Quality Tools

3 Credit Hours

(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Engineering Technology Support Specialist (CCC) (ETSS)	
Fall Semester	
EET 1084C - Introduction to Electronics 3 Credit Hours - Offered at Night Only	
ETI 1420 - Properties of Materials and Processes 3 Credit Hours - Offered Online Only	
ETI 1710 - Occupational Safety 3 Credit Hours - Offered Online Only	
Total Semester Hours: 9	
Spring Semester	
ETI 2110 - Total Quality Tools 3 Credit Hours	

ETD 1320C - AutoCAD I 3 Credit Hours
ETM 1010C - Mechanical Measurement and Instrumentation 3 Credit Hours
Total Semester Hours: 9
Total Program Hours: 18

Rapid Prototyping Specialist (CCC)

Admission Program of Study Code RAPP

State CIP Code 0615000012

Students who successfully complete this certificate may be eligible to receive credits towards the Engineering Technology - Digital Manufacturing Specialization (DM) Option (AS) or the Engineering Technology - Digital Design & Modeling Specialization Option (AS) Option (Both State CIP Code 1615000001).

Core Courses

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2368C - SolidWorks II

3 Credit Hours
(Spring)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using SolidWorks Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2364C or higher or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with

the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

Total Technical Elective Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Rapid Prototyping Specialist (CCC) (RAPP)
Fall Semester
ETD 2364C - SolidWorks I 3 Credit Hours
ETD 2371C - 3D Printing I 3 Credit Hours
Total Semester Hours: 6
Spring Semester
ETD 2368C - SolidWorks II 3 Credit Hours
ETD 2372C - 3D Printing II 3 Credit Hours
Total Semester Hours: 6
Total Program Hours: 12

Graphics Technology

Associate in Science

Graphics Technology - Graphic Design Option (AS)

Admission Program Objective Code GRTH
State CIP Code 1611080300

The Graphics Technology (Graphic Design Technology) A.S. degree is intended for students interested in careers in Graphic Design and Commercial Art where creativity and visual communication are core competencies. Students are encouraged, but not required, to contact Graphic Arts faculty at 729-6019 for detailed advising to plan a program of study before enrolling in courses.

Students who successfully complete selected courses from this program of study may be eligible to receive the Graphic Design Production (CCC) (State CIP Code 0650040204), and/or Graphic Design Support (CCC) (State CIP Code 0650040202).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours
(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 2191C - Graphic Design II

3 Credit Hours
(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 24

Technical Elective Courses

Select 22 credits from the following:

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment in studio art classes is permitted on a space-available basis only.

GRA 2905 - Independent Study – Graphic Design

1 Credit Hour
(Offered as needed)

The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

Prerequisite(s): GRA 1151C or PGY 1801C

▲ Technology-Across-the-Curriculum Course.

GRA 2950C - Advanced Graphic Projects

4 Credit Hours
(Offered as needed)

An advanced Graphic Design course addressing common Graphic Design problems. Students will explore advanced software application functionality and creative, aesthetic, and portfolio development. Access to a high quality digital camera required.

Prerequisite(s): ART 2602C, ART 2603C, GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 1220C - Commercial Photography I

4 Credit Hours
(Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using a high quality digital studio camera, electronic lighting, and digital applications of their work. It is recommended that students take PGY 1801C prior to or at the same time as this course.

PGY 2221C - Commercial Photography II

4 Credit Hours
(Offered as needed)

As advanced a course that allows the student to expand their skill set in producing photographic illustrations for industrial and advertising use. Students may explore product, portrait, and on-location commercial photographic projects.

Prerequisite(s): PGY 1220C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2804C - Digital Photography III

4 Credit Hours
(Offered as needed)

An advanced-level photography courses where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 2802C.

▲ Technology-Across-the-Curriculum Course.

- ____ Other Approved College Credits (GRA, PGY) _

Total Technical Elective Credits Required: 22

Total Program Credits Required: 64

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Graphics Technology, Graphics Design Option (AS) (GRTH)	Companion Certificate*	
First Year	GRDS	GRAT
Fall Semester PGY 1801C - Digital Photography I 4 Credit Hours GRA 1151C - Illustration I 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education 3 Credit Hours Additional General Education 3 Credit Hours Total Semester Hours: 16	 √ 	 √ √
Spring Semester ART 2602C - Digital Imaging I 4 Credit Hours GRA 2190C - Graphic Design I 3 Credit Hours Humanities General Education 3 Credit Hours Science General Education 3 Credit Hours Total Semester Hours: 13	√ √ 	√ √
Summer Semester Social Science General Education 3 Credit Hours PGY 2802C - Digital Photography II 4 Credit Hours Total Program Hours: 7	 	 √
Second Year		
Fall Semester GRA 1152C - Illustration II 3 Credit Hours GRA 2191C - Graphic Design II 3 Credit Hours ART 2603C - Digital Imaging II 4 Credit Hours	 √ 	 √ √

PGY 1220C - Commercial Photography I 4 Credit Hours		
GRA 2900 - Independent Study – Graphic Art 1 Credit Hour		
Total Semester Hours: 15		
Spring Semester		
PGY 2221C - Commercial Photography II 4 Credit Hours		
GRA 2950C - Advanced Graphic Projects 4 Credit Hours		
PGY 2804C - Digital Photography III 4 Credit Hours		
GRA 2905 - Independent Study – Graphic Design 1 Credit Hour		
Total Semester Hours: 13		
Total Program Hours: 64		
* Courses with √ can also be used in the Companion Certificate indicated: Graphic Design Support (CCC) GRAT - Graphics Design Production (CCC)		

Graphics Technology - Visual Artist Option (AS)

Admission Program Objective Code GRTV
State CIP Code 1611080300

The Graphics Technology (Graphic Design Technology) A.S. degree is intended for students interested in careers in Graphic Design and Commercial Art where creativity and visual communication are core competencies. Students are encouraged but not required to contact Graphic Arts faculty for detailed advising before enrolling in courses to plan a program of study at 729-6019.

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2500C - Painting I

3 Credit Hours
(Fall, Spring)

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing,

and execution thereof within a variety of subject matter. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 26

Technical Elective Courses

Select 20 credits from the following:

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2701C - Sculpture I

3 Credit Hours
(Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2703C - Sculpture II

3 Credit Hours
(Spring)

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach.

Prerequisite(s): ART 2701C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2501C - Painting II

3 Credit Hours
(Fall, Spring)

This course is a continuation of Painting I ART 2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed.

Prerequisite(s): ART 2500C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2955 - Portfolio Development

3 Credit Hours
(Spring)

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation.

Prerequisite(s): ART 1201C, ART 1203C, ART 1300C, ART 1301C.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

- _____ Other Approved College Credits _____

Total Technical Elective Credits Required: 20

Total Program Credits Required: 64

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Graphics Technology, Visual Artist Option (AS) (GRTV)
First Year
Fall Semester ART 1300C - Drawing I 3 Credit Hours ART 2602C - Digital Imaging I 4 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education 3 Credit Hours Additional General Education 3 Credit Hours Total Semester Hours: 16
Spring Semester GRA 1151C - Illustration I 3 Credit Hours ART 1201C - Two-Dimensional Design 3 Credit Hours Humanities General Education 3 Credit Hours Science General Education 3 Credit Hours Total Semester Hours: 12
Summer Semester ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism 3 Credit Hours ♦ † ¶ PGY 1801C - Digital Photography I 4 Credit Hours Total Semester Hours: 7
Second Year
Fall Semester GRA 2190C - Graphic Design I 3 Credit Hours GRA 1152C - Illustration II 3 Credit Hours ARH 2402 - Art History: Modern Art 3 Credit Hours ♦ † ¶

ART 2500C - Painting I **3 Credit Hours**

ART 1301C - Drawing II **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ART 2501C - Painting II **3 Credit Hours**

ART 1203C - Three-Dimensional Design **3 Credit Hours**

Social Science General Education **3 Credit Hours**

PGY 1220C - Commercial Photography I **4 Credit Hours**

GRA 2905 - Independent Study – Graphic Design **1 Credit Hour**

Total Semester Hours: 14

Total Program Hours: 64

College Credit Certificate

Graphic Design Production (CCC)

Admission Program of Study Code GRDP

State CIP Code 0611080303

Students who successfully complete this certificate may be eligible to receive credits towards the Graphics Technology (Graphic Design) A.S. Degree (State CIP Code 1611080300).

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours

(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours

(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 25

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Graphic Design Production (CCC) (GRAT)
Fall Semester
PGY 1801C - Digital Photography I 4 Credit Hours
GRA 1151C - Illustration I 3 Credit Hours
GRA 2190C - Graphic Design I 3 Credit Hours
ART 2602C - Digital Imaging I 4 Credit Hours
Total Semester Hours: 14
Spring Semester
ART 2603C - Digital Imaging II 4 Credit Hours
PGY 2802C - Digital Photography II 4 Credit Hours
GRA 1152C - Illustration II 3 Credit Hours
Total Semester Hours: 11
Total Program Hours: 25

Graphic Design Support (CCC)

Admission Program of Study Code GRDS
State CIP Code 0611080302

Core Courses

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Program Credits Required: 14

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Graphic Design Support (CCC) (GRDS)
Fall Semester ART 2602C - Digital Imaging I 4 Credit Hours GRA 2190C - Graphic Design I 3 Credit Hours Total Semester Hours: 7
Spring Semester PGY 1801C - Digital Photography I 4 Credit Hours GRA 1151C - Illustration I 3 Credit Hours Total Semester Hours: 7
Total Program Hours: 14

GRA 2191C - Graphic Design II

3 Credit Hours

(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

Health Services Management

Associate in Science

Health Services Management (AS)

Admission Program Objective Code HTMG

State CIP Code 1351070101

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **2 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ENC 2210 - Technical Report Writing

**3 Credit Hours
(Spring)**

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

HSA 1100 - Introduction to Health Care

**3 Credit Hours
(Fall)**

This course provides an overview of the United States Healthcare System, including the economic, social, political, and technological forces that shape the industry. The role of state and federal government and regulatory agencies in healthcare delivery is examined. The fundamental roles and responsibilities of healthcare team members are surveyed. Healthcare safety, security, and infection control procedures will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1100 - Health Education

**3 Credit Hours
(Spring)**

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

**3 Credit Hours
(Spring)**

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

HSC 1531 - Medical Terminology

**3 Credit Hours
(Fall)**

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.
or

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours
(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 2011 - Introduction to Marketing

3 Credit Hours

(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1346 - Supervision II

3 Credit Hours

(Offered as needed)

The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socioeconomic climate and other information. Included are orientation, training, labor unions, safety, health and other related topics.

Prerequisite(s): MNA 1345 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours

(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Note(s):

** Anatomy & Physiology I with Anatomy & Physiology II may be substituted for BSC 2020C.*

*** Students who have successfully completed a health related program such as dental assisting, practical nursing, or surgical technology may challenge the Medical Terminology course. Contact the Division Director for further information.*

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Health Services Management (AS) (HTMG)
First Year
Fall Semester CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours HSA 1100 - Introduction to Health Care 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ Mathematics General Education - 3 Credit Hours BSC 2020C - Human Structure and Function 4 Credit Hours or BSC 1085C - Anatomy and Physiology I and BSC 1086C - Anatomy and Physiology II Total Semester Hours: 16
Spring Semester HSC 1100 - Health Education 3 Credit Hours HSC 1400 - First Aid 3 Credit Hours Technical Elective - 3 Credit Hours Technical Elective - 3 Credit Hours Technical Elective - 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester HSC 1531 - Medical Terminology 3 Credit Hours MNA 1161 - Customer Service 3 Credit Hours Social Science General Education - 3 Credit Hours Humanities General Education Course - 3 Credit Hours Technical Elective - 3 Credit Hours

Total Semester Hours: 15
Spring Semester MNA 1345 - Supervision I 3 Credit Hours OST 2335 - Business Communications 3 Credit Hours or SPC 2300 - Interpersonal Communication ENC 2210 - Technical Report Writing 3 Credit Hours Technical Elective - 3 Credit Hours Additional General Education Credits - 2 Credit Hours Total Semester Hours: 14
Total Program Hours: 60

Hospitality and Tourism

Associate in Science

Culinary Management (AS)

Culinary Management

Admission Program of Study code: CUL

State CIP Code 1612050401

The Emerald Coast is one of the top tourist beach destinations in the U.S. and tourism is one of the leading industries in Northwest Florida. Northwest Florida State College's Culinary A.S. Degree Program is designed to support the tourism industry by preparing students for employment in the culinary and restaurant industry. Students will gain employability skills and knowledge through classroom instruction and culinary lab experience in the following courses Sanitation and Safety; Maintenance and Operation of Equipment; Methods of Preparation and Cooking; Perform Different Types of Food Services; Nutrition; Baking; and Dining Room and Beverage Management. Students will also receive training in communications, leadership and human relations skills. This program focuses on broad, transferable skills and stresses understanding and demonstration of elements of the culinary industry. Careers include culinary manager, food and beverage manager, pantry cook, executive chef and many more.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in :

Chef's Apprentice (CCC)

Culinary Arts (CCC)

Culinary Arts Management Operations (CCC)

General Education

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- PHI 2600 - Introduction to Ethics **3 Credit Hours** ♦ † ¶
- MAC 1105 - College Algebra **3 Credit Hours** ♦ , STA 2023 - Statistics **3 Credit Hours** ♦ , MGF 1106 - Practical Applications of Mathematics **3 Credit Hours** ♦ , or higher mathematics course
- BSC 1005 - General Biology **3 Credit Hours** ♦ or PHY 1020 - Physical Science **3 Credit Hours** ♦ or CHM 1020 - Chemical Science **3 Credit Hours** ♦
- ECO 2013 - Economics I **3 Credit Hours** ♦
- HUN 2201 - Nutrition **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

3 Credit Hours
(Spring)

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

3 Credit Hours
(Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours

(Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

3 Credit Hours

(Summer)

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 2100 - Food Plans and Menu Preparation

3 Credit Hours

(Spring)

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2242L - International and Regional Cuisine

3 Credit Hours

(Spring)

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

FSS 2500 - Food and Beverage Cost Control

3 Credit Hours (Fall)

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2942 - Culinary Internship

3 Credit Hours (Spring)

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L, HFT 1000, and FSS 1221L with a grade of "D" or better.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case

studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SLS 1101 - College Success

3 Credit Hours (Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Management (AS) (CUL)
First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ SLS 1101 - College Success 3 Credit Hours Total Semester Hours: 12
Spring Semester FSS 1202L - Food Production I 3 Credit Hours FSS 1120 - Food and Beverage Purchasing 3 Credit Hours FSS 1001 - Culinary Techniques 3 Credit Hours MAC 1105 - College Algebra 3 Credit Hours ♦ , STA 2023 - Statistics 3 Credit Hours ♦ , or MGF 1106 - Practical Applications of Mathematics 3 Credit Hours ♦

Total Semester Hours: 12

Summer Semester

BSC 1005 - General Biology **3 Credit Hours ♦**, PHY 1020 - Physical Science **3 Credit Hours ♦** or CHM 1020 - Chemical Science **3 Credit Hours ♦**

FSS 1246L - Baking and Pastries I **3 Credit Hours**

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 9

Second Year

Fall Semester

FSS 2500 - Food and Beverage Cost Control **3 Credit Hours**

FSS 1221L - Food Production II **3 Credit Hours**

ECO 2013 - Economics I **3 Credit Hours ♦**

HUN 2201 - Nutrition **3 Credit Hours**

PHI 2600 - Introduction to Ethics **3 Credit Hours ♦ † ¶**

Total Semester Hours: 15

Spring Semester

FSS 2942 - Culinary Internship **3 Credit Hours**

FSS 2100 - Food Plans and Menu Preparation **3 Credit Hours**

FSS 2242L - International and Regional Cuisine **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management **3 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 60

Hospitality and Tourism (AS)

Hospitality and Tourism

Admission Program of Study Code HSTR

State CIP Code 1252090101

The Hospitality and Tourism program prepares students for employment in management positions in the hospitality industry and/or provides supplemental training for persons previously or currently employed in these occupations. The hospitality industry as addressed in this program includes the hotel, motel, bed and breakfast, resort, club, marina, and other lodging organizations.

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in :

Event Planning Management (CCC)

Food and Beverage Management (CCC)

Food and Beverage Operations (CCC)

Food and Beverage Specialist (CCC)

Guest Services Specialist (CCC)

Rooms Division Management (CCC)

Rooms Division Operations (CCC)

Rooms Division Specialist (CCC)

General Education

- ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶
- PHI 2600 - Introduction to Ethics **3 Credit Hours** ♦ † ¶
- MAC 1105 - College Algebra **3 Credit Hours** ♦, STA 2023 - Statistics **3 Credit Hours** ♦, MGF 1106 - Practical Applications of Mathematics **3 Credit Hours** ♦ or higher mathematics course
- BSC 1005 - General Biology **3 Credit Hours** ♦, CHM 1020 - Chemical Science **3 Credit Hours** ♦, or PHY 1020 - Physical Science **3 Credit Hours** ♦
- ECO 2013 - Economics I **3 Credit Hours** ♦
- HUN 2201 - Nutrition **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

FOS 2201 - Food Service Sanitation Management

3 Credit Hours (as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours (Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

**3 Credit Hours
(Fall)**

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

**3 Credit Hours
(Offered Fall, Spring, Summer)**

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

SLS 1101 - College Success

**3 Credit Hours
(Fall, Spring, Summer)**

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

Total Core Credits Required: 42

Total Program Credits Required: 60

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Hospitality and Tourism (AS) – Specializations – Event Planning, Food and Beverage, and Room Division
First Year
Fall Semester
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶

SLS 1101 - College Success **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

HFT 1250 - Hotel and Resort Operations **3 Credit Hours**

FSS 1250 - Dining Room Management **3 Credit Hours**

BSC 1005 - General Biology **3 Credit Hours ♦** , PHY 1020 - Physical Science **3 Credit Hours ♦** , or CHM 1020 - Chemical Science **3 Credit Hours ♦**

MAC 1105 - College Algebra **3 Credit Hours ♦** , STA 2023 - Statistics **3 Credit Hours ♦** , or MGF 1106 - Practical Applications of Mathematics **3 Credit Hours ♦**

Total Semester Hours: 12

Summer Semester

FSS 2251 - Food and Beverage Management **3 Credit Hours**

HFT 1410 - Front Office Management **3 Credit Hours**

CGS 1570 - Computer Applications for Business **3 Credit Hours**

Total Semester Hours: 9

Second Year

Fall Semester

HFT 1300 - Managing Housekeeping **3 Credit Hours**

HFT 1500 - Marketing and Sales in the Hospitality Industry **3 Credit Hours**

HFT 2223 - Human Relations and Supervisory Development **3 Credit Hours**

ECO 2013 - Economics I **3 Credit Hours ♦**

HUN 2201 - Nutrition **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HFT 2210 - Hospitality Management **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management **3 Credit Hours**

PHI 2600 - Introduction to Ethics **3 Credit Hours ♦ † ¶**

HFT 2942 - Hospitality Internship 3 Credit Hours
Total Semester Hours: 12
Total Program Hours: 60

College Credit Certificate

Chef's Apprentice (CCC)

Admission Program of Study Code: CHEF

State CIP Code 0612050302

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1202L - Food Production I

3 Credit Hours
(Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food

products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Chef's Apprentice (CCC) (CHEF)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
Total Semester Hours: 6
Spring Semester
FSS 1202L - Food Production I 3 Credit Hours
FSS 1001 - Culinary Techniques 3 Credit Hours
Total Semester Hours: 6
Total Program Hours: 12

Culinary Arts (CCC)

Admission Program of Study Code: CULA

State CIP Code 0612050301

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses**FOS 2201 - Food Service Sanitation Management****3 Credit Hours
(as Needed)**

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques**3 Credit Hours
(Spring)**

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing**3 Credit Hours
(Spring)**

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I**3 Credit Hours
(Fall)**

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours
(Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

3 Credit Hours
(Summer)

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 2100 - Food Plans and Menu Preparation

3 Credit Hours
(Spring)

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2242L - International and Regional Cuisine

3 Credit Hours
(Spring)

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2500 - Food and Beverage Cost Control

3 Credit Hours

(Fall)

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2942 - Culinary Internship

3 Credit Hours

(Spring)

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L , HFT 1000 , and FSS 1221L with a grade of "D" or better.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 36

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Arts (CCC) (CULA)
First Year

Fall Semester

FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**

FSS 2500 - Food and Beverage Cost Control **3 Credit Hours**

Total Semester Hours: 9

Spring Semester

FSS 1202L - Food Production I **3 Credit Hours**

FSS 1120 - Food and Beverage Purchasing **3 Credit Hours**

FSS 1001 - Culinary Techniques **3 Credit Hours**

FSS 2100 - Food Plans and Menu Preparation **3 Credit Hours**

Total Semester Hours: 12

Summer Semester

FSS 1246L - Baking and Pastries I **3 Credit Hours**

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 6

Second Year**Fall Semester**

FSS 1221L - Food Production II **3 Credit Hours**

Total Semester Hours: 3

Spring Semester

FSS 2942 - Culinary Internship **3 Credit Hours**

FSS 2242L - International and Regional Cuisine **3 Credit Hours**

Total Semester Hours: 6

Total Program Hours: 36

Culinary Arts Management Operations (CCC)

Admission Program of Study Code: CULM

State CIP Code 0612050401

Students who successfully complete this certificate may be eligible to receive credits towards the Culinary Management (AS) degree (State CIP Code 1252090101).

Core Courses**FOS 2201 - Food Service Sanitation Management****3 Credit Hours
(as Needed)**

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques**3 Credit Hours
(Spring)**

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1202L - Food Production I**3 Credit Hours
(Fall)**

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II**3 Credit Hours
(Fall)**

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Culinary Arts Management Operations (CCC) (CULM)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
Total Semester Hours: 6
Spring Semester
FSS 1202L - Food Production I 3 Credit Hours
FSS 1001 - Culinary Techniques 3 Credit Hours

Total Semester Hours: 6
Summer Semester FSS 2251 - Food and Beverage Management 3 Credit Hours Total Semester Hours: 3
Second Year
Fall Semester FSS 1221L - Food Production II 3 Credit Hours Total Semester Hours: 3
Total Program Hours: 18

Event Planning Management (CCC)

Admission Program of Study Code (EPMG)

State CIP Code 0252090905

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours (Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours (Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours (Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

Total Program Credits Required: 24

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Event Planning Management (CCC) (EPMG)
First Year
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours Total Semester Hours: 12
Spring Semester FSS 1250 - Dining Room Management 3 Credit Hours FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours HFT 2210 - Hospitality Management 3 Credit Hours Total Semester Hours: 9
Summer Semester FSS 2251 - Food and Beverage Management 3 Credit Hours Total Semester Hours: 3
Total Semester Hours: 24

Food and Beverage Management (CCC)

Admission Program of Study Code FBMG
State CIP Code 0252090503

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

3 Credit Hours**(Offered Fall, Spring, Summer)**

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

Total Program Credits Required: 30**Suggested Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beveragement Management (CCC) (FBMG)
First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours Total Semester Hours: 12
Spring Semester FSS 1250 - Dining Room Management 3 Credit Hours HFT 2210 - Hospitality Management 3 Credit Hours FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours HFT 1250 - Hotel and Resort Operations 3 Credit Hours Total Semester Hours: 12
Summer Semester HFT 2942 - Hospitality Internship 3 Credit Hours FSS 2251 - Food and Beverage Management 3 Credit Hours

Total Semester Hours: 6
Total Semester Hours: 30

Food and Beverage Operations (CCC)

Admission Program of Study Code FBOP

State CIP Code 0252090508

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101)

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2251 - Food and Beverage Management

3 Credit Hours
(Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

**3 Credit Hours
(Spring)**

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

**3 Credit Hours
(Fall)**

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 18

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beverage Operations (CCC) (FBOP)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours
Total Semester Hours: 9
Spring Semester

FSS 1250 - Dining Room Management **3 Credit Hours**

FSS 2284 - Catering, Banquet and Event Management **3 Credit Hours**

Total Semester Hours: 6

Summer Semester

FSS 2251 - Food and Beverage Management **3 Credit Hours**

Total Semester Hours: 3

Total Program Hours: 18

Food and Beverage Specialist (CCC)

Admission Program of Study Code FBSP
State CIP Code 0252090507

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101)

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

**3 Credit Hours
(Fall)**

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1500 - Marketing and Sales in the Hospitality Industry

**3 Credit Hours
(Fall)**

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 12

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Food and Beverage Specialist (CCC) (FBSP)
First Year
Fall Semester FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours Total Semester Hours: 9
Spring Semester FSS 1250 - Dining Room Management 3 Credit Hours Total Semester Hours: 3
Total Program Hours: 12

Guest Services Specialist (CCC)

**Admission Program of Study Code GUES
State CIP Code 0252090403**

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

Total Program Credits Required: 15

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Guest Services Specialist (CCC) (GUES)	Companion Certificate*
First Year	
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours Total Semester Hours: 9	
Spring Semester HFT 1250 - Hotel and Resort Operations 3 Credit Hours Total Semester Hours: 3	
Summer Semester HFT 1410 - Front Office Management 3 Credit Hours Total Semester Hours: 3	√
Total Program Credits: 15	
* Courses with √ can also be used in the Companion Certificate indicated: Rooms Division Operations (CCC)	

Rooms Division Management (CCC)

Admission Program of Study Code RMMG

State CIP Code 0252090402

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours
(Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2942 - Hospitality Internship

3 Credit Hours
(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

Total Program Credits Required: 30**Suggested Academic Plan**

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Rooms Division Management (CCC) (RMMG)	Companion Certificate*
First Year	
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours FOS 2201 - Food Service Sanitation Management 3 Credit Hours HFT 2223 - Human Relations and Supervisory Development 3 Credit Hours Total Semester Hours: 15	
Spring Semester FSS 2284 - Catering, Banquet and Event Management 3 Credit Hours HFT 1250 - Hotel and Resort Operations 3 Credit Hours HFT 2210 - Hospitality Management 3 Credit Hours Total Semester Hours: 9	
Summer Semester HFT 1410 - Front Office Management 3 Credit Hours HFT 2942 - Hospitality Internship 3 Credit Hours Total Semester Hours: 6	√
Total Program Credits: 30	
* Courses with √ can also be used in the Companion Certificate indicated: Rooms Division Operations (CCC)	

Rooms Division Operations (CCC)

Admission Program of Study Code RMOP
State CIP Code 0252090406

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2940 - Hospitality Internship

1 Credit Hour
(Offered Fall, Spring, Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 19

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Rooms Division Operations (CCC) (RMOP)
First Year
Fall Semester
FOS 2201 - Food Service Sanitation Management 3 Credit Hours
HFT 1000 - Introduction to Hospitality Management 3 Credit Hours
HFT 1300 - Managing Housekeeping 3 Credit Hours
HFT 1500 - Marketing and Sales in the Hospitality Industry 3 Credit Hours
Total Semester Hours: 12

Spring Semester

HFT 1250 - Hotel and Resort Operations **3 Credit Hours**

HFT 2940 - Hospitality Internship **1 Credit Hour**

Total Semester Hours: 4

Summer Semester

HFT 1410 - Front Office Management **3 Credit Hours**

Total Semester Hours: 3

Total Program Hours: 19

Rooms Division Specialist (CCC)

Admission Program of Study Code ROOM

State CIP Code 0252090405

Students who successfully complete this certificate may be eligible to receive credits towards the Hospitality and Tourism (AS) degree (State CIP Code 1252090101).

Core Courses**HFT 1000 - Introduction to Hospitality Management**

3 Credit Hours

(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours

(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

**3 Credit Hours
(Fall)**

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

**3 Credit Hours
(Summer)**

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 2940 - Hospitality Internship

**1 Credit Hour
(Offered Fall, Spring, Summer)**

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Program Credits Required: 13

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester

Rooms Division Specialist (CCC) (ROOM)
First Year
Fall Semester HFT 1000 - Introduction to Hospitality Management 3 Credit Hours HFT 1300 - Managing Housekeeping 3 Credit Hours Total Semester Hours: 6
Spring Semester HFT 1250 - Hotel and Resort Operations 3 Credit Hours Total Semester Hours: 3

Summer Semester

HFT 1410 - Front Office Management **3 Credit Hours**

HFT 2940 - Hospitality Internship **1 Credit Hour**

Total Semester Hours: 4

Total Program Hours: 13

Industrial Management Technology**Associate in Science****Industrial Management Technology (AS)**

Admission Program Objective Code INDU

State CIP Code 1652020501

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses**Required Course****ACG 2001 - Accounting I**

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.
or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

GEB 1214 - Business and Supervision Terminology

2 Credit Hours
(Fall)

This course is designed for students to achieve mastery of the special vocabulary, jargon, and concept terminology associated with general business and supervision in the modern workplace. Students will apply the terms in common workplace scenarios and hypothetical situations, as well as in standard written documents and assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the

organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 29

Technical Elective Courses

Select 13 credits from the following:

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of

objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2947 - Academic Learning Field Studies I

1 Credit Hour
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2948 - Academic Learning Field Studies II

2 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2949 - Academic Learning Field Studies III

3 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Total Technical Elective Credits Required: 13

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Industrial Management Technology (AS) (INDU)
First Year
Fall Semester GEB 1214 - Business and Supervision Terminology 2 Credit Hours ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶ CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours MTB 1103 - Business Mathematics 3 Credit Hours Technical Elective 3 Credit Hours Technical Elective 1 Credit Hours Total Semester Hours: 15
Spring Semester ETI 1710 - Occupational Safety 3 Credit Hours MNA 1345 - Supervision I 3 Credit Hours Social Science General Education Course 3 Credit Hours Mathematics General Education Course 3 Credit Hours Humanities General Education Course 3 Credit Hours Total Semester Hours: 15
Second Year
Fall Semester Science General Education Course 3 Credit Hours ACG 2001 - Accounting I 3 Credit Hours MAN 2021 - Management 3 Credit Hours Additional General Education Credits 3 Credit Hours

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

ETI 2110 - Total Quality Tools **3 Credit Hours**

MAN 2300 - Personnel Management **3 Credit Hours**

MNA 2100 - Organizational Behavior **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Medical Coder/Biller

College Credit Certificate

Medical Coder/Biller (CCC)

Admission Program of Study Code MEDB

State CIP Code 0351070714

Core Courses

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.
with

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

OR

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

or

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours
(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1432 - Pathopharmacology

3 Credit Hours
(Fall)

Introduction to the nature, cause, and treatment of disease entities and the body's defense mechanisms. Commonly used drugs will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2253 - CPT Coding - Part 1

3 Credit Hours
(Spring)

Instruction and practice in basic CPT coding conventions, principles of classifying physician services using current procedural terminology (CPT-4), APC, and auditing procedures. Ethical standards of practice will be analyzed.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

(Previously listed as HIM1253)

HIM 2272 - Healthcare Reimbursement

3 Credit Hours
(Summer)

Emphasis on billing regulations for the State of Florida. Course content includes LMRPS, Workers' Compensation laws, Florida Medicare, and claims for automobile accident injuries.

Prerequisite(s): HIM 2253 and HIM 2724 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2291 - CPT Coding Part 2

3 Credit Hours
(Spring)

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, inpatient and outpatient prospective payment systems, encoding software and RBRVs.

Prerequisite(s): HIM 2253 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2724 - ICD Coding Part 1

3 Credit Hours
(Fall)

This course provides a foundation using ICD-10-CM/PCS coding conventions, rules, methodology and sequencing, data sets, documentation requirements, and coding resources.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

HIM 2729 - ICD Coding Part 2

3 Credit Hours
(Fall)

This course focuses on assigning appropriate ICD, DRG, and Level II (HCPCS) codes to a wide range of original source medical documents. This course increases the quality of code selection by applying the decision process in problem solving using well-defined medical record review methods and guidelines. Ethical practices will be discussed.

Prerequisite(s): HIM 2724 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2815C - Professional Practice Experience

3 Credit Hours
(Summer)

Working in a simulated, online environment, students will endeavor to code and bill using nationally recognized, American Health Information Management Association (AHIMA) simulation software.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

Total Core Credits Required: 37

Total Program Credits Required: 37

Notes:

- Students must earn a grade of "C" or higher in each course in the curriculum in order to progress through the curriculum.
- Students must have a High School Diploma or GED to graduate from this program.

Suggested Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Medical Coder/Biller (CCC) (MEDB)
Fall Semester BSC 2020C - Human Structure and Function 4 Credit Hours HSC 1531 - Medical Terminology 3 Credit Hours HIM 1432 - Pathopharmacology 3 Credit Hours HIM 2724 - ICD Coding Part 1 3 Credit Hours (Session 2) HIM 2729 - ICD Coding Part 2 3 Credit Hours (Session 3) Total Semester Hours: 16
Spring Semester CGS 1100 - Microcomputer Applications 3 Credit Hours ▲ or CGS 1570 - Computer Applications for Business 3 Credit Hours HIM 1000 - Health Information and Delivery Systems 3 Credit Hours HIM 1012 - Health Care and Legal Compliance 3 Credit Hours HIM 2253 - CPT Coding - Part 1 3 Credit Hours (Session 2)

HIM 2291 - CPT Coding Part 2 **3 Credit Hours** (Session 3)

Total Semester Hours: 15

Summer Semester

HIM 2815C - Professional Practice Experience **3 Credit Hours**

HIM 2272 - Healthcare Reimbursement **3 Credit Hours**

Total Semester Hours: 6

Total Program Hours: 37

Music Production Technology

Associate in Science

Music Production Technology (AS)

Admission Program Objective Code MUSC

State CIP Code 1650091300

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Audio Technology (Recording Arts) (CCC) (State CIP Code 0650060209).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

MUM 1620 - Audio and Acoustic Fundamentals

3 Credit Hours

(Fall, Spring, Summer)

Audio and Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening.

The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio and recording equipment.

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

Total Core Credits Required: 15

Technical Elective Courses

Select 31 credits from the following:

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 2116 - Music Theory III

**3 Credit Hours
(Fall)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

**3 Credit Hours
(Spring)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 1241 - Ear Training and Sight Singing I

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

**1 Credit Hour
(Fall, Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

- _____ Other Approved College Credits (MUL, MUM, MUN, MUS, MUT, MVB, MVK, MVP, MVS, MVV, MVW)
- _____ Other Approved College Credits

Total Technical Elective Credits Required: 31

Total Program Credits Required: 64

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Music Production Technology (AS) (MUSC)	Companion Certificate*
First Year	ATRA
Summer Semester	
MUT 1001 - Fundamentals of Music 3 Credit Hours	√
Total Semester Hours: 3	

Fall Semester	
MUM 1620 - Audio and Acoustic Fundamentals 3 Credit Hours	√
MUT 1121 - Music Theory I - Ear Training and Sight Singing 3 Credit Hours	√
MVV 1211 - Applied Music – Voice I 1 Credit Hour	√
MUL 1010 - Music Appreciation 3 Credit Hours † ♦ ¶	√
MUN 1360 - Madrigal Singers I 1 Credit Hour	√
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶	
Total Semester Hours: 14	
Spring Semester	
MUM 2600 - Recording Techniques I 3 Credit Hours	√
MUT 1122 - Music Theory II - Ear Training and Sight Singing 3 Credit Hours	√
MVV 2221 - Applied Music – Voice II 1 Credit Hour	√
MUN 2361 - Madrigal Singers II 1 Credit Hour	√
MVS 1016 - Applied Strings – Guitar I 1 Credit Hour	√
General Education Mathematics Course 3 Credit Hours	
General Education Social Science Course 3 Credit Hours	
Total Semester Hours: 15	
Second Year	
Summer Semester	
MUM 2300 - Introduction to the Music Industry 3 Credit Hours	√
Total Semester Hours: 3	
Fall Semester	
MUM 2601 - Recording Techniques II 3 Credit Hours	√
MUT 2126 - Music Theory III – Ear Training and Sight Singing 3 Credit Hours	√
MVS 1016 - Applied Strings – Guitar I 1 Credit Hour	√
MUN 1710A - Rock and Jazz Ensembles I 1 Credit Hour	√

MUS 2930 - Music – Special Topics 3 Credit Hours	√
General Education Science Course 4 Credit Hours	
Total Semester Hours: 15	
Spring Semester	
MUM 2604 - Multi-Track Mixdown (Post Production) 3 Credit Hours	√
MUT 2127 - Music Theory IV – Ear Training and Sight Singing 3 Credit Hours	√
MVS 2026 - Applied Strings – Guitar II 1 Credit Hour	√
General Education Humanities Course 3 Credit Hours	
Additional General Education Credits 2 Credit Hours	
MUN 1720A - Rock and Jazz Ensembles II 1 Credit Hour	√
MUN 2361 - Madrigal Singers II 1 Credit Hour	√
Total Semester Hours: 14	
Total Program Hours: 64	
* Courses with √ can also be used in the Companion Certificate indicated: ATRA - Audio Technology (Recording Arts) (CCC)	

College Credit Certificate

Audio Technology (Recording Arts) (CCC)

Admission Program of Study Code ATRA
State CIP Code 0650060209

Students who successfully complete this program may apply these credits to the Music Production Technology (AS) degree (State CIP Code 1650091300).

Core Courses

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

- _____ Other Approved College Credits (MUL, MUM, MUN, MUS, MUT, MVB, MVK, MVP, MVS, MVV, MVW) **3 Credit Hours**

Total Program Credits Required: 15

Nursing

Associate in Science

Nursing (AS)

Admission Program Objective Code NURS
State CIP Code 1351380100

The AS Nursing program at Northwest Florida State College is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

(404) 975-5000

<http://www.acenursing.us/accreditedprograms/programSearch.htm>

This program is a Selective Admission program subject to additional program policies. Policies are strictly enforced and students should work with a Student Success Navigator rather than self-advise. The admission criteria and process are subject to change; students should refer to the Selective Program Admissions/Nursing (AS) webpage for the most current information. All courses in the AS Nursing program, including general education and core courses, must be completed with a minimum grade of "C" to graduate with the AS Degree in Nursing.

General Education

Unless otherwise noted, select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings. A minimum grade of "C" in each General Education course is required.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- ____ ____ Humanities **3 Credit Hours**
- ____ ____ Any core Mathematics course **3 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

or PSY 2012 - Psychology **3 Credit Hours ♦**

Total General Education Credits Required: 20

Core Courses

A minimum grade of "C" in each Core course is required.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

NUR 1021C - Nursing Process I

6 Credit Hours
(Fall, Spring)

This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psycho-social sciences in this first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to healthcare systems ethical-legal aspects of nursing practice, health and illness, communications, functional health patterns of clients, stress-adaptation, professional behaviors, and all steps of the nursing process with emphasis on assessment of older adult clients. Students begin socialization into the role of the Associate Degree Nurse as a member of an interdisciplinary healthcare team.

Prerequisite(s): Admission to the AS Nursing Program, BSC 1085C, ENC 1101, (MAC 1105 OR STA 2023)

Corequisite(s): NUR 1021L

Prereq/Corequisites: BSC 1086C, HUN 2201

Special Nursing Program policies may apply to this course.

NUR 1021L - Nursing Process I Clinical Experience

4 Credit Hours
(Fall, Spring)

This course introduces students to the role of the Associate Degree Nurse in providing direct, holistic nursing care to young, middle-aged and older adults who are hospitalized or in community settings. Students are introduced to all steps of the nursing process with a focus on assessment skills. Students will identify self-learning needs and set their own goals for improvement. Critical thinking and working effectively with peers and other healthcare professionals as a team member is expected. The demonstration of caring behaviors and therapeutic communication as a provider of bedside, technical nursing care is emphasized. Students must demonstrate safe performance of basic nursing skills, including but not limited to medication administration, physical assessment, and comfort care.

Prerequisite(s): Admission to the AS Nursing Program

Corequisite(s): NUR 1021C.

Special Nursing Program policies may apply to this course.

NUR 1141 - Pharmacologic Principles in Nursing I

1 Credit Hour
(Fall, Spring)

This course introduces students to concepts and principles of pharmacology related to safe administration of therapeutic agents within the nursing process framework. Students begin to learn major drug classifications and selected exemplars along with principles of safe, effective administration of drugs. Students will learn dosage calculations, factors that affect the absorption, excretion, distribution, and metabolism of drugs, as well as drug actions, adverse effects, and interactions.

Prerequisite(s): Admission to the AS Nursing Program

Special Nursing Program policies may apply to this course.

NUR 1142 - Pharmacologic Principles in Nursing II

1 Credit Hour
(Fall, Spring)

An introduction to the role of the associate degree nurse in providing direct, holistic nursing care to young, middle-aged and elderly adults who are hospitalized or receiving care in community settings. Emphasis is on applying all steps of the nursing process with focus on assessment skills. Pre-requisite college foundation and nursing courses provide theoretical bases for nursing care. Critical thinking is an expected behavior along with skills in working ethically and effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care of hospitalized adults and nursing home residents.

Prerequisite(s): NUR 1141 or LPN licensure and admission to the Nursing Program

Corequisite(s): NUR 1231C and NUR 1750L

Special Nursing Program policies may apply to this course.

NUR 1231C - Nursing Process II

5 Credit Hours
(Fall, Spring)

Application of the nursing process continues with emphasis on the planning and implementation of nursing care for clients experiencing threats to functional health patterns. Development of professional behaviors, such as developing therapeutic relationships continues with students working clients through life interactions. Students further develop critical thinking skills through case studies and simulation scenarios designed to provide students with problem solving skills in analyzing, planning and prioritizing care for clients whose health problems are more acute or chronic; the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief, and loss. Students learn basic management skills as a team member caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate.

Prerequisite(s): NUR 1021L NUR 1021C and NUR 1141;or LPN licensure; admission to the AS Nursing Program or permission from the program director

Corequisite(s): NUR 1750L and NUR 1142

Prereq/Corequisites: DEP 2004

Special Nursing Program policies may apply to this course.

NUR 1750L - Nursing Process II - Clinical Experience

4 Credit Hours (Fall, Spring)

This course builds on competencies presented in Nursing Process I regarding the role of the Associate Degree Nurse in providing direct, holistic nursing care for adult clients experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, and community settings provide students with opportunities to apply the nursing process in care of clients, including the older adult. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills.

Prerequisite(s): NUR 1021L or LPN licensure

Corequisite(s): NUR 1231C.

Special Nursing Program policies may apply to this course.

NUR 2233C - Nursing Process III

6 Credit Hours (Fall, Spring)

Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including during the childbearing process and children whose normal lines of defense have been invaded by stressors to the degree that hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development.

Prerequisite(s): NUR 1231C & NUR 1142 or approval from the program director.

Corequisite(s): NUR 2233L

Prereq/Corequisites: MCB 2010C

Special Nursing Program policies may apply to this course.

NUR 2233L - Nursing Process III – Clinical Experience

4 Credit Hours (Fall, Spring)

Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for the hospitalized child, the family during the maternity cycle, and adults whose health problems are more complex and/or chronic. Clinical sites include hospitals, health departments, clinics, physician offices, schools and other community settings. Conflict resolution skills are applied, as needed, to meet client and/or peer learning goals. Delegation skills with peers are also practiced. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this clinical course.

Prerequisite(s): NUR 1750L

Corequisite(s): NUR 2233C.

Special Nursing Program policies may apply to this course.

NUR 2241C - Nursing Process IV

5 Credit Hours (Fall, Spring)

Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical thinking skills in exploring case-based practice situations and work together in simulation seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development.

Prerequisite(s): Permission from the Director of Nursing or NUR 2233C; MAC 1105 or STA 2023

Corequisite(s): NUR 2241L, NUR 2811L

Prereq/Corequisites: SYG 2000

Special Nursing program policies may apply to this course.

NUR 2241L - Nursing Process IV – Clinical Experience

3 Credit Hours (Fall, Spring)

Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their four-week clinical practicum prior to graduation from the program. Students will also shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Other clinical activities will include experiences in the emergency department and critical care units. Students must demonstrate competency in all behaviors required for an Associate Degree Nursing graduate.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2811L

Special Nursing Program policies may apply to this course.

NUR 2811L - Nursing Practicum

3 Credit Hours (Fall, Spring)

This course is a capstone course and provides a time during the last four weeks of the nursing program in which students begin to transition from the student role into the graduate role as an associate degree nurse. Students attend seminar hours and complete standardized testing for evaluation in proficiency in applying all steps in the nursing process with emphasis on evaluating safe nursing care outcomes. Students complete clinical practice hours with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients. The

focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry level. Clinical experiences provide hands-on learning opportunities, enhancing clinical thinking, safe nursing judgment, and clinical confidence in skills. Clinical experiences take place in a variety of clinical settings and work schedules.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2241L

Special Nursing Program policies may apply to this course.

LPNs who successfully complete NUR 1142, NUR 1231C, NUR 1750L, NUR 2233C and NUR 2233L will receive credit for NUR 1021C, NUR 1021L, and NUR 1141.

Total Core Credits Required: 52

Technical Electives (Not Required)

NUR 1940L - Nursing Clinical Externship

**3 Credit Hours
(Summer)**

This elective course is designed to offer students the opportunity to gain additional clinical skills practice during the summer semester. Working with a preceptor and the nursing faculty in area hospitals, clinics, or community settings, the student will be able to perform all skills learned in successfully completed nursing courses.

Prerequisite(s): admission to the AS Nursing Program; NUR 1750L or NUR 1021L

Special Nursing Program policies may apply to this course.

Total Program Credits Required: 72

Suggested Two Year Academic Plan

This program admits students twice per year to being NUR courses in the fall and spring semesters. Below is a sample academic plan for these students admitted in the identified semester.

Nursing (AS) (NURS)
First Year
Summer or Fall Semester
BSC 1085C - Anatomy and Physiology I 4 Credit Hours ♦
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
Mathematics Core General Education course* 3 Credit Hours ♦
Total Semester Hours: 10

Fall or Spring Semester ("Semester 1 in Nursing Program")

BSC 1086C - Anatomy and Physiology II **4 Credit Hours**

HUN 2201 - Nutrition **3 Credit Hours**

NUR 1021C - Nursing Process I **6 Credit Hours**

NUR 1021L - Nursing Process I Clinical Experience **4 Credit Hours**

NUR 1141 - Pharmacologic Principles in Nursing I **1 Credit Hour**

Total Semester Hours: 18

Spring or Fall Semester ("Semester 2 in Nursing Program")

DEP 2004 - Human Growth and Development **3 Credit Hours**

Humanities Core General Education Course ** **3 Credit Hours ♦**

NUR 1231C - Nursing Process II **5 Credit Hours**

NUR 1750L - Nursing Process II - Clinical Experience **4 Credit Hours**

NUR 1142 - Pharmacologic Principles in Nursing II **1 Credit Hour**

Total Semester Hours: 16

Second Year**Fall or Spring Semester ("Semester 3 in Nursing Program")**

MCB 2010C - Microbiology, Allied Health **4 Credit Hours**

NUR 2233C - Nursing Process III **6 Credit Hours**

NUR 2233L - Nursing Process III – Clinical Experience **4 Credit Hours**

Total Semester Hours: 14

Spring or Fall Semester ("Semester 4 in Nursing Program")

SYG 2000 - Sociology **3 Credit Hours ♦ ♦** or PSY 2012 - Psychology **3 Credit Hours ♦**

NUR 2241C - Nursing Process IV **5 Credit Hours**

NUR 2241L - Nursing Process IV – Clinical Experience **3 Credit Hours**

NUR 2811L - Nursing Practicum **3 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 72
* While any Core General Education Mathematics course is acceptable, Statistics (STA 2023) should be strongly considered because it is a required course in the RN to BSN program. ** AS Core General Education Humanities include the Speaking-Across-the-Curriculum (SATC) requirement. Students who already have a humanities course that does NOT include SATC, may take another humanities course that meets the SATC requirement or a speech course.

Paralegal Studies

Associate in Science

Paralegal Studies (AS)

Admission Program Objective Code PARA
State CIP Code 1722030200

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1003 - Introduction to Paralegal Studies

3 Credit Hours
(Fall)

This course is designed to give students a broad understanding of the nature of the paralegal profession and the elements contained within the profession, as well as its responsibility.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1114 - Legal Research and Writing

3 Credit Hours
(Spring)

This course is designed to provide the student with necessary skills and knowledge required in legal research/case analysis and legal writing.

Prerequisite(s): PLA 1003 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1600 - Wills, Trusts, and Probate

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of estate planning, wills, and probate administration.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1800 - Introduction to Family Law

3 Credit Hours
(Spring)

An introduction to practices as they relate to family law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2273 - Tort Law

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of tort law with objectives centered on personal injury torts.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Total Core Credits Required: 27

Technical Elective Courses

Select 15 credits from the following:

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider

(ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

OST 1355 - Records Management

3 Credit Hours

(Fall)

Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2949 - Internship - Paralegal

3 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): completion of a minimum of 12 credit hours in the appropriate discipline, including PLA 1003 and permission of the instructor is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

*This college credit course is not intended for transfer and may not be applied toward the AA degree.

Total Technical Elective Credits Required: 15

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Paralegal Studies (AS) (PARA)
First Year
Fall Semester
PLA 1003 - Introduction to Paralegal Studies 3 Credit Hours

ENC 1101 - English Composition I **3 Credit Hours** ♦ ▲ ¶

Mathematics General Education - **3 Credit Hours**

Technical Elective **3 Credit Hours**

PLA 1005 - Legal Terminology **3 Credit Hours** OR PLA 1013 - Introduction to the Legal System **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

BUL 2241 - Business Law I **3 Credit Hours**

PLA 1114 - Legal Research and Writing **3 Credit Hours**

Humanities General Education - **3 Credit Hours**

Social Science General Education - **3 Credit Hours**

PLA 1013 - Introduction to the Legal System **3 Credit Hours** OR PLA 1005 - Legal Terminology **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

PLA 2273 - Tort Law **3 Credit Hours**

Science General Education - **3 Credit Hours**

PLA 1600 - Wills, Trusts, and Probate **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

PLA 1203 - Civil Procedure **3 Credit Hours**

PLA 1800 - Introduction to Family Law **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Technical Elective - **3 Credit Hours**

Total Semester Hours: 15
Total Program Hours: 60

Radiography

Associate in Science

Radiography (AS)

Admission Program Objective Code RADT

State CIP Code 1351090700

The Radiography program is based on selective admission, subject to additional policies and licensure requirements. Students attend classes at the Niceville Campus, and are assigned to clinical rotations at various healthcare facilities in the district. Graduates are eligible to sit for the ARRT certification exam. For additional information contact the Health Technology Department at (850) 729-6444.

Please note: In order to be a part of the **Radiography program applicant pool**, students must declare Radiography as their intended major on the online admissions application.

General Education

Unless otherwise noted, select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- ____ - Communication Skills **3 Credit Hours**
- ____ - Humanities **3 Credit Hours**

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

MAC 1105 - College Algebra , an equivalent, or higher level math course **3 Credit Hours**

Total General Education Credits Required: 20

Core Courses

RTE 1000 - Introduction to Radiologic Technology

2 Credit Hours
(Summer, Offered as needed)

This course is designed to provide an overview of the history of radiography and the role and scope of practice of the practitioner in the healthcare delivery system. Organizations, accreditation, federal agencies, regulatory agencies (including OSHA), and professional credentialing will be discussed. Content includes a fundamental background in medical law, ethics, human diversity, and patient consent. The student will examine a variety of ethical issues and dilemmas found in clinical practice, as well as developing a better understanding of patients, the patient's families, and professional peers through comparison of diverse populations based on value systems, cultural and ethnic influences, communication styles, and socioeconomic influences. Radiographic medical terminology and pharmacology will be covered. Site specific clinical education paperwork will be completed. Background check, drug screening, training, and clinical site approval mandatory.

Prerequisite(s): Admission to the Radiography Program.

RTE 1111 - Introduction to Radiographic Patient Care

2 Credit Hours
(Fall)

This course is designed to prepare radiography students to provide basic patient care. Basic concepts of patient care will be described, as well as infection control procedures and standard precautions. This course includes hospital specific training. Health risks, life stages, HIV/AIDs and domestic violence will be discussed. This course also includes an introduction to medical and radiographic terminology. Topics include vital signs, venipuncture, body mechanics and transport, verbal/nonverbal communication, and some pharmacology.

Prerequisite(s): admission to the Radiography Program.

RTE 1418 - Radiographic Techniques I

3 Credit Hours
(Fall)

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. This course introduces the student to a comprehensive study and theory of the production of x-rays and primary exposure factors of radiographic imaging. The image parameters of density, contrast, recorded detail, image distortion and blur will be studied as well as ancillary devices and equipment required to produce a quality radiographic image. Digital imaging with related accessories will be emphasized. Class demonstrations and exercises are used to demonstrate application of theory.

Prerequisite(s): MAC 1105 or other Gordon Rule math course and admission to the Radiography Program.

RTE 1457C - Radiographic Techniques II

4 Credit Hours
(Spring)

This course is a continuation of RTE 1418 Radiographic Techniques I. Course content includes the basics of magnetism, electricity, motors, generators, rectifying systems, x-ray tube and filament circuitry. Topics in electromagnetism such as self and mutual induction, high voltage transformation, and AC rectification will be emphasized. An introduction of special radiographic methods will include automatic exposure control, computers, fluoroscopy and image intensification, subtraction radiography, conventional tomography, digital image receptors, and digital image acquisition and manipulation.

Prerequisite(s): RTE 1418.

Corequisite(s): RTE 1513C

RTE 1503C - Radiographic Procedures I

4 Credit Hours
(Fall)

This course is designed to provide the Radiography student with instruction in radiographic examinations of the chest, abdomen, upper extremity and lower extremity. An introduction to medical and radiographic terminology, radiographic anatomy, and image critique are also included.

Prerequisite(s): BSC 1085C and admission to the Radiography program.

RTE 1513C - Radiographic Procedures II

4 Credit Hours
(Spring)

This course is a continuation of RTE 1503C. It is designed to provide the student with instruction in radiographic procedures and anatomy in the distal extremities, hip region, spine, ribs, and sternum and the cranium. Critical thinking, medical and radiographic terminology, as well as image critique are emphasized.

Prerequisite(s): RTE 1503C, RTE 1804L , and BSC 1086C

Corequisite(s): RTE 1814L.

RTE 1804L - Radiography Clinical Education I

3 Credit Hours
(Fall)

This course involves the practical application of the theories covered in RTE 1503C and RTE 1000. Rotations provide experience with various imaging systems, protocols, and patient care. Students observe, assist and perform basic radiographic procedures (chest, abdomen and extremities) under direct supervision. This course emphasizes patient care and critical thinking. This course meets at the affiliate hospitals. Uniforms, name badges and

radiographic markers required.

Prerequisite(s): RTE 1000

Corequisite(s): RTE 1503C

RTE 1814L - Radiography Clinical Education II

3 Credit Hours (Spring)

This course is a continuation of Radiography Clinical Education I. This clinical training emphasizes lower and upper extremity. Medical and radiographic terminology, patient care, critical thinking and communication skills are emphasized. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1804L

Corequisite(s): RTE 1513C.

RTE 1824L - Radiography Clinical Education III

4 Credit Hours (Summer)

This course is a continuation of Radiography Clinical Education II. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I and II. The student will gain experience and develop clinical competence in general radiographic procedures such as the cranium and specialized contrast studies. Advanced patient care skills, critical thinking, imaging and exposure techniques, radiation protection application and image processing will be emphasized. This rotation covers clinical experience in all phases of fundamental radiologic procedures and image critique. Students will rotate through ancillary departments in this course.

Prerequisite(s): RTE 1814L

Corequisite(s): RTE 2523C.

RTE 2061 - Radiographic Preparation for Practice

4 Credit Hours (Spring)

This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover patient care and education, image production, equipment operation and maintenance, radiographic procedures and radiation protection. The student will also be given simulated registry examinations for practice and assessment purposes.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2854L.

RTE 2385 - Radiographic Protection and Biology

**3 Credit Hours
(Fall)**

This course is designed to provide the student with an overview of the principles of interaction of ionizing radiation with living systems. Ionizing effects on molecules, cells, tissues and the body as a whole are presented, along with factors affecting biological response, including; acute, chronic, stochastic and non-stochastic effects. This course is also designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and healthcare organizations are incorporated, as are the various methods of monitoring radiation exposure and acceptable dose limit values.

Prerequisite(s): RTE 1000, RTE 1418, RTE 1457C, RTE 2523C

Corequisite(s): RTE 2844L.

RTE 2473 - Radiographic Quality Assurance

**2 Credit Hours
(Fall)**

This course is designed to introduce the radiography student to evaluation methodology of radiographic systems to assure consistency in the production of quality images. Image critique, fluoroscopy, malfunctions, and specifications are some of the topics covered in the course.

Prerequisite(s): RTE 1418, RTE 1457C

Corequisite(s): RTE 2844L.

RTE 2523C - Radiographic Procedures III

**3 Credit Hours
(Summer)**

This course is a continuation of RTE 1513C covering cranium procedures and positioning. It is designed to provide the student with instruction in more complex radiographic procedures such as fluoroscopy, urinary studies, bone age, trauma, pediatrics, mobile and surgical radiography. Included is instruction in additional modalities and studies such as CT, MRI, arthrography, myelography, and vascular studies. Attention will be given to the specialized equipment, contrast media, critical thinking and techniques necessary to perform these procedures. Radiographic anatomy, pathology, and critique of images are included in this course.

Prerequisite(s): RTE 1513C

Corequisite(s): RTE 1824L.

RTE 2533C - Radiographic Procedures IV

**2 Credit Hours
(Fall)**

This is a continuation of RTE 2523C, with emphasis on special procedures and additional modalities. Students are required to complete observations hours within specialty areas.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2844L

RTE 2571 - Introduction to Computed Tomography

**1 Credit Hour
(Spring)**

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Content is not intended to result in clinical competency.

Prerequisite(s): RTE 1418

RTE 2782 - Radiographic Pathology

**3 Credit Hours
(Spring)**

This course is designed to introduce theories of disease causation and the pathophysiologic disorder that compromise healthy persons. Etiology, pathophysiologic responses, clinical manifestations, and radiographic appearance of alterations in body systems will be presented. Emphasis will be placed on pathological findings on diagnostic radiographic images.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2854L.

RTE 2844L - Radiography Clinical Education IV

**5 Credit Hours
(Fall)**

This course is a continuation of RTE 1824L. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I, II and III. The student will gain experience and develop clinical competence in specialized imaging procedures, and mobile, surgical and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 1824L

Corequisite(s): RTE 2385.

RTE 2854L - Radiography Clinical Education V

**5 Credit Hours
(Spring)**

This course is a continuation of RTE 2844L. The terminal objective for this course is to prepare the student for employment as an entry level technologist. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I-IV and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2061.

All RTE courses must be completed with a grade of 75 or higher to progress in the Radiography Program.

Total Core Credits Required: 57

Total Program Credits Required: 77

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Radiography (AS) (RADT)
First Year
Summer Semester
BSC 1085C - Anatomy and Physiology I 4 Credit Hours ♦
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
MAC 1105 - College Algebra 3 Credit Hours ♦
RTE 1000 - Introduction to Radiologic Technology 2 Credit Hours
Total Semester Hours: 12
Fall Semester
BSC 1086C - Anatomy and Physiology II 4 Credit Hours
RTE 1111 - Introduction to Radiographic Patient Care 2 Credit Hours
RTE 1503C - Radiographic Procedures I 4 Credit Hours
RTE 1418 - Radiographic Techniques I 3 Credit Hours
RTE 1804L - Radiography Clinical Education I 3 Credit Hours
Total Semester Hours: 16
Spring Semester
RTE 1513C - Radiographic Procedures II 4 Credit Hours
RTE 1457C - Radiographic Techniques II 4 Credit Hours

RTE 1814L - Radiography Clinical Education II **3 Credit Hours**

DEP 2004 - Human Growth and Development **3 Credit Hours**

RTE 2571 - Introduction to Computed Tomography **1 Credit Hour**

Total Semester Hours: 15

Summer Semester

Humanities General Education Course **3 Credit Hours**

RTE 1824L - Radiography Clinical Education III **4 Credit Hours**

RTE 2523C - Radiographic Procedures III **3 Credit Hours**

Total Semester Hours: 10

Second Year

Fall Semester

RTE 2385 - Radiographic Protection and Biology **3 Credit Hours**

RTE 2473 - Radiographic Quality Assurance **2 Credit Hours**

RTE 2533C - Radiographic Procedures IV **2 Credit Hours**

RTE 2844L - Radiography Clinical Education IV **5 Credit Hours**

Total Semester Hours: 12

Spring Semester

RTE 2061 - Radiographic Preparation for Practice **4 Credit Hours**

RTE 2782 - Radiographic Pathology **3 Credit Hours**

RTE 2854L - Radiography Clinical Education V **5 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 77

Sports, Fitness and Recreation Management

Associate in Science

Sports, Fitness and Recreation Management (AS)

**Admission Program Objective Code SPFR
State CIP Code 1731050701**

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

Core Courses

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

LEI 1544 - Outdoor Recreation Management

3 Credit Hours
(Fall, Spring)

This course examines the fundamental influences on outdoor recreation. The course also provides information on hazards, conservation considerations, and safety factors in planning and organizing outdoor recreations. Basic first aid, CPR, and AED training is incorporated as it pertains to outdoor recreation. Field trips may be assigned as warranted.

PEM 1131A - Strength Training

3 Credit Hours
(Offered as needed)

This course is a high intensity lecture/demonstration and flexible lab hour weight training program designed to increase the size, strength, and endurance of the skeletal muscle system. Instruction includes, but is not limited to, weight training safety, etiquette, history, and nutrition. Instruction will be given in the design of progressive resistance programs to increase total body efficiency and to meet the objectives of the individual student. Students are responsible for determining fitness for training, and those with medical problems which restrict personal activities are encouraged to obtain medical clearance before enrolling in the course.

PET 1000 - Introduction to Physical Education

3 Credit Hours
(Offered as needed)

A study of the history of physical education and sport with particular emphasis placed on present practices and trends.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

Total Core Credits Required: 21

Technical Elective Courses

Select 21 credits from the following:

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CLP 1001 - Personal Adjustment

3 Credit Hours
(Fall, Spring, Summer)

Psychology of adjustment, application of psychological theory for problem solving and better mental health. An examination of psychological defense mechanisms and adaptive behavior.

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

LIN 1670 - Writing and Grammar

3 Credit Hours
(Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAT 1033A - Intermediate Algebra

4 Credit Hours
(Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PEM 2108 - Fitness Lab

1 Credit Hour
(Offered as needed)

Instruction and participation in an exercise program with emphasis on muscle endurance, strength and flexibility.

Prerequisite(s): HLP 1081 or approved wellness assessment by the department chair.

This course may be taken up to four times for credit.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

- _____ - Selected Activity Courses (PEL, PEM, PEO) **4 Credit Hours**
- _____ - Other Approved College Credits

Total Technical Elective Credits Required: 21

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Sports, Fitness and Recreation Management (AS) (SPFR)
First Year
Fall Semester
HSC 1400 - First Aid 3 Credit Hours
PET 1000 - Introduction to Physical Education 3 Credit Hours
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶

General Education Humanities Course **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HUN 2201 - Nutrition **3 Credit Hours**

General Education Mathematics Course **3 Credit Hours**

General Education Social Science Course **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Second Year

Fall Semester

HSC 1100 - Health Education **3 Credit Hours**

PEM 1131A - Strength Training **3 Credit Hours**

General Education Science Course **3 Credit Hours**

Additional General Education Credits **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

HLP 1081 - Wellness: Practice and Theory **3 Credit Hours**

PET 2622 - Care and Prevention of Athletic Injuries **3 Credit Hours**

LEI 1544 - Outdoor Recreation Management **3 Credit Hours**

Technical Elective **3 Credit Hours**

Technical Elective **3 Credit Hours**

Total Semester Hours: 15

Total Program Hours: 60

Theatre and Entertainment Technology

Associate in Science

Theater and Entertainment Technology - Acting Specialization Option (AS)

Admission Program Objective Code THTA

State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the college credit certificate in Stage Technology (Theater & Entertainment) (CCC) (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours

(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶

(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2141 - Acting in Shakespeare

3 Credit Hours
(Offered as needed)

This course is an introduction to the concepts, principles, and skills needed to develop characters in Shakespeare's plays. The course focuses on the hidden clues in the text to discover character choices and meaning. Specific analysis and the techniques of scansion are introduced as they relate to character interpretation. Application of these techniques will be presented in scenes and monologues.

TPP 2120 - Improvisation

3 Credit Hours
Offered as needed

This course explores the use of creativity and imagination, engaging the actor in a wide variety of improvisational theatre games.

TPP 2150 - Advanced Scene Study

**3 Credit Hours
(Fall)**

This course is a continuation of the processes and concepts of TPP 2111, Acting II, with the addition of new techniques to create dynamic and engaging characterizations through performance.

TPP 2220 - Auditioning

**3 Credit Hours
(Offered as Needed)**

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2533 - Stage Combat I (Unarmed & Rapier)

**3 Credit Hours
(Spring)**

Through in-class study and performance the student will develop an understanding of and proficiency in the safe techniques of unarmed and rapier stage combat which are required of a theatrical performer. Application of these techniques will be presented in two scenes, one for unarmed and one for rapier.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two-Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Acting Specialization Option (AS) (THTA)	Companion Certificate*
First Year	
Fall Semester	
Communications General Education Course 3 Credit Hours	√
THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶	√
THE 2304 - Script Analysis 3 Credit Hours	√
TPP 2110 - Acting I 3 Credit Hours	
SPC 1608 - Public Speaking 3 Credit Hours † or SPC 2300 - Interpersonal Communication 3 Credit Hours †	
Total Semester Hours: 15	

Spring Semester	
TPA 2232 - Introduction to Costuming Technology 3 Credit Hours	√
TPP 2111 - Acting II 3 Credit Hours	√
TPP 2220 - Auditioning 3 Credit Hours	√
Humanities General Education Course 3 Credit Hours	
Mathematics General Education Course 3 Credit Hours	
Total Semester Hours: 15	
Second Year	
Fall Semester	
Natural Science General Education Course 3 Credit Hours	
TPP 2120 - Improvisation 3 Credit Hours	
TPP 2150 - Advanced Scene Study 3 Credit Hours	
TPA 1210 - Stagecraft 3 Credit Hours	√
TPP 1190 - Rehearsal and Performance I 3 Credit Hours	
Total Semester Hours: 15	
Spring Semester	
TPP 2533 - Stage Combat I (Unarmed & Rapier) 3 Credit Hours	
TPP 1191 - Rehearsal and Performance II 3 Credit Hours	
TPP 2141 - Acting in Shakespeare 3 Credit Hours	
TPP 1940 - Internship in Theatre Performance 3 Credit Hours	
Social Science General Education Course 3 Credit Hours	
Total Semester Hours: 15	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC)	

Theater and Entertainment Technology - Costuming Specialization Option (AS)

Admission Program Objective Code THTC
State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the Stage Technology (Theater & Entertainment) (CCC) certificate (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours

(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

HUM 1905A - Independent Study – Arts and Humanities

1 Credit Hour

(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): approval from department chair, a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

THE 2304 - Script Analysis

3 Credit Hours

(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour

(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2331 - Costume Construction

3 Credit Hours
(Offered as needed)

An introduction to costume construction techniques and wardrobe design. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences

in costume construction.

Prerequisite(s): TPA 2232

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1192 - Rehearsal and Performance III

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1191.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2930 - Theater Performance – Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Costuming Specialization Option (AS) (THTC)	Companion Certificate*
First Year	STGT
Summer Semester TPA 1290 - Technical Theatre Lab I 1 Credit Hour HUM 1905A - Independent Study – Arts and Humanities 1 Credit Hour Total Semester Hours: 2	√ √
Fall Semester Communications General Education Course 3 Credit Hours Speech General Education Course 3 Credit Hours TPP 2110 - Acting I 3 Credit Hours TPA 2232 - Introduction to Costuming Technology 3 Credit Hours Total Semester Hours: 12	
Spring Semester Social Science General Education Course 3 Credit Hours TPA 2220 - Lighting Design 3 Credit Hours TPP 1190 - Rehearsal and Performance I 3 Credit Hours TPA 2331 - Costume Construction 3 Credit Hours Total Semester Hours: 12	√ √ √
Summer Semester Natural Science General Education Course 3 Credit Hours TPP 1191 - Rehearsal and Performance II 3 Credit Hours	√

Total Semester Hours: 3	
Second Year	
Fall Semester Mathematics General Education Course 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶ THE 2304 - Script Analysis 3 Credit Hours Total Semester Hours: 12	√
Spring Semester TPA 1291 - Technical Theatre Lab II 1 Credit Hour TPP 1192 - Rehearsal and Performance III 3 Credit Hours THE 2300 - Dramatic Literature 3 Credit Hours † ¶ TPA 2063 - Principles of Scenic Design 3 Credit Hours TPP 2930 - Theater Performance – Special Topics 3 Credit Hours TPA 1940 - Internship in Theatre Design or Production 3 Credit Hours Total Semester Hours: 16	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC) (STGT)	

Theater and Entertainment Technology - Dance Specialization Option (AS)

Admission Program Objective Code THTD
State CIP Code 1650050202

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**

- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction

techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

Select 33 credits from the following:

DAA 1104 - Modern I for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to affect an understanding of the art of the modern dance. It includes a brief history of the dance; instruction and practice in basic dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time. This course maybe taken 4 times for credit.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1204 - Ballet I for Majors

2 Credit Hours
(Fall, Spring, Summer)

A beginning dance course designed to serve as an introduction to the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring

popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical theater auditions.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1681 - Dance Ensemble

1 Credit Hour
(Fall, Spring)

The student shall participate in the preparation and performance of original dance compositions to include Dance Line and Show Choir performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.
(to be completed three times for audit)

DAA 2105 - Modern II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to further the student's understanding of the art of the modern dance. It includes continued study in history of the dance; instruction and practice in intermediate level dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2205 - Ballet II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance course is designed to serve as an further training in the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2610 - Dance Composition

2 Credit Hours
(Fall, Spring)

An introduction and practice in the application of compositional tools encourages the student to explore and compose dance. By studying the body's movement in time and space the student will improve technical skills, develop improvisation and choreographic skills and enhance overall dance performance. Previous dance experience is helpful.

This course may be taken up to four times for credit.

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography)

1 Credit Hour
(Fall, Spring)

This course includes the continuation of study and participation in all rehearsals of selected works of dance repertory and/or original choreography culminating in public performance.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAN 1750 - Dance Conditioning

1 Credit Hour
(Fall, Spring)

Dance Conditioning is an excellent course in which to begin your dance training. It is designed to improve fundamentals for the beginning/intermediate student through daily practice in floor work, yoga, and Pilates exercises. This movement class will get you ready to meet the challenges of other dance classes by toning, strengthening and preparing the body to move.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAN 2120 - Dance Appreciation

3 Credit Hours
(Offered as needed)

This course is a study of the development of dance as an art form, as entertainment, and how it relates to the history of cultures and societies, emphasizing the evolution of dance in the specific genres such as ballet, modern dance, jazz dance, and world dance forms. Designed to heighten student awareness of dance as an integral part of society and establish an appreciation of dance's impact on the making of art. This course will give the student a foundation level understanding of dance as an art form and its historical and cultural significance. The major periods of dance history, master choreographers, and their works will be explored through lecture, discussion and media presentation. DAN 2120 is not an activity course.

Total Technical Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Dance Specialization Option (AS) (THTD)
First Year
Summer Semester Communications General Education Course 3 Credit Hours DAA 1200 - Fundamentals of Ballet 2 Credit Hours Total Semester Hours: 5
Fall Semester Mathematics General Education Course 3 Credit Hours DAA 1104 - Modern I for Majors 2 Credit Hours DAA 1204 - Ballet I for Majors 2 Credit Hours DAA 1504 - Jazz I for Majors 2 Credit Hours DAA 1681 - Dance Ensemble - Audit DAN 1750 - Dance Conditioning 1 Credit Hour DAN 2120 - Dance Appreciation 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours Total Semester Hours: 16
Spring Semester Natural Science General Education Course 3 Credit Hours DAA 1104 - Modern I for Majors 2 Credit Hours DAA 1204 - Ballet I for Majors 2 Credit Hours DAA 1504 - Jazz I for Majors 2 Credit Hours DAA 1520 - Tap I 1 Credit Hour DAA 1681 - Dance Ensemble - Audit DAA 2683 - Performance Dance, (Repertory and/or Original Choreography) 1 Credit Hour

THE 2000 - Theatre Appreciation **3 Credit Hours** † ♦ ¶

Total Semester Hours: 14

Second Year

Fall Semester

Humanities General Education Course **3 Credit Hours**

Speech Additional General Education Course **3 Credit Hours**

DAA 1681 - Dance Ensemble - **Audit**

DAA 2105 - Modern II for Majors **2 Credit Hours**

DAA 2205 - Ballet II for Majors **2 Credit Hours**

DAA 2610 - Dance Composition **2 Credit Hours**

DAN 1750 - Dance Conditioning **1 Credit Hour**

Total Semester Hours: 13

Spring Semester

Social Science General Education Course **3 Credit Hours**

DAA 2105 - Modern II for Majors **2 Credit Hours**

DAA 2205 - Ballet II for Majors **2 Credit Hours**

DAA 1520 - Tap I **1 Credit Hour**

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography) **1 Credit Hour**

TPA 2232 - Introduction to Costuming Technology **3 Credit Hours**

Total Semester Hours: 12

Total Program Hours: 60

Theater and Entertainment Technology - Music Theater Specialization Option (AS)

Admission Program Objective Code THTM

State CIP Code 1650050202

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**
- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1500 - Jazz I for Non-Majors

1 Credit Hour
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken four times for credit.
(to be completed twice for program credit)

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical

theater auditions.

This course may be taken up to four times for credit.
(to be completed twice for program credit)

DAA 1680 - Dance Workshop

1 Credit Hour
(Fall, Spring)

This course includes instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

This course may be taken up to four times for credit.
(to be completed four times for **audit**)

- MUN ____ - Music Ensembles (to be completed four times for **audit**)

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MVV 1211 - Applied Music – Voice I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice.

This course may be taken up to four times for credit.

MVV 1311 - Applied Music - Voice I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in voice in the freshman year of study as the student's principal performing medium. This one hour weekly lesson is for intended voice majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which four memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVV 2221 - Applied Music – Voice II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice.

Prerequisite(s): MVV 1211.

This course may be taken up to four times for credit.

MVV 2322 - Applied Music - Voice II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in voice in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended voice majors, and requires Division Chair Approval. A major component of this class is a required juried performance at the end of the semester for which six memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211, MVV 1311 and Division Chair approval.

This course may be taken up to four times for credit.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2220 - Auditioning

3 Credit Hours
(Offered as Needed)

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2250 - Introduction to Musical Theatre

3 Credit Hours
(Fall)

Introduction to the study of Musical Theater analysis, creation, and performance with an emphasis on singing, dancing, and acting.

Total Technical Elective Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Music Theater Specialization Option (AS) (THTM)	
Summer Semester	
Speech General Education Course 3 Credit Hours	
DAA 1200 - Fundamentals of Ballet 2 Credit Hours	

Total Semester Hours: 5

First Year

Fall Semester

Communications General Education Course **3 Credit Hours**

MUT 1111 - Music Theory I **3 Credit Hours**

MUT 1241 - Ear Training and Sight Singing I **1 Credit Hour**

DAA 1500 - Jazz I for Non-Majors **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 1211 - Applied Music – Voice I **1 Credit Hour**

TPP 2110 - Acting I **3 Credit Hours**

Total Semester Hours: 12

Spring Semester

Mathematics General Education Course **3 Credit Hours**

DAA 1500 - Jazz I for Non-Majors **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 2221 - Applied Music – Voice II **1 Credit Hour**

THE 2000 - Theatre Appreciation **3 Credit Hours † ♦ ¶**

TPP 2111 - Acting II **3 Credit Hours**

TPP 2220 - Auditioning **3 Credit Hours**

Total Semester Hours: 14

Second Year

Fall Semester

Natural Science General Education Course **3 Credit Hours**

MUL 1010 - Music Appreciation **3 Credit Hours † ♦ ¶**

DAA 1520 - Tap I **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 1311 - Applied Music - Voice I for Majors **2 Credit Hours**

TPA 1210 - Stagecraft **3 Credit Hours**

TPP 2250 - Introduction to Musical Theatre **3 Credit Hours**

Total Semester Hours: 15

Spring Semester

Social Science General Education Course **3 Credit Hours**

DAA 1504 - Jazz I for Majors **2 Credit Hours**

DAA 1520 - Tap I **1 Credit Hour**

DAA 1680 - Dance Workshop - **Audit**

MUN XXXX - Ensemble - **Audit**

MVV 2322 - Applied Music - Voice II for Majors **2 Credit Hours**

TPA 2232 - Introduction to Costuming Technology **3 Credit Hours**

TPP 1940 - Internship in Theatre Performance **3 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 60

Theater and Entertainment Technology - Technical Theater Specialization Option (AS)

Admission Program Objective Code THTT

State CIP Code 1650050202

Students who successfully complete selected courses from this program of study may be eligible to receive the Stage Technology (Theater & Entertainment) (CCC) certificate (State CIP Code 0650050201).

General Education

Select one course from each category; see the AS Degree General Education Requirements section of catalog for specific course listings:

- _____ Communication Skills **3 Credit Hours**
- _____ Humanities **3 Credit Hours**

- _____ Mathematics **3 Credit Hours**
- _____ Natural Sciences **3 Credit Hours**
- _____ Social Sciences **3 Credit Hours**
- _____ Additional General Education Credits **3 Credit Hours**

Total General Education Credits Required: 18

A proficiency exam may be required in major emphasis area(s).

Core Courses

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFS's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

Total Core Credits Required: 9

Technical Required Courses

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 2276C - Entertainment Technology - Crafts

3 Credit Hours
(Spring)

This course presents the practices and principles of advanced woodworking, welding, smithing, casting, ceramics, plaster work, fiberglass and plastic technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented that will use items created in a realized production.

Prerequisite(s): TPA 1210.

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2292 - Technical Theatre Lab III

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the

opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1291

TPA 2301 - Technical Theatre Lab IV

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 2292

TPA 2343 - CAD for the Theatre

3 Credit Hours
(Offered as Needed)

This course is project oriented covering fundamental through advanced material in computer aided drafting and design and its application for the theatre.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

Total Technical Elective Credits Required: 33

Total Program Credits Required: 60

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Theater and Entertainment Technology - Technical Theater Specialization Option (AS) (THTT)	Companion Certificate*
First Year	STGT
Summer Semester Social Science General Education Course 3 Credit Hours	

TPA 1290 - Technical Theatre Lab I 1 Credit Hour Total Semester Hours: 4 Fall Semester Communications General Education Course 3 Credit Hours TPA 1210 - Stagecraft 3 Credit Hours TPA 2212 - Sound Production for the Stage 3 Credit Hours TPA 2343 - CAD for the Theatre 3 Credit Hours THE 2304 - Script Analysis 3 Credit Hours Total Semester Hours: 15	 √ √
Spring Semester TPA 1291 - Technical Theatre Lab II 1 Credit Hour TPA 2063 - Principles of Scenic Design 3 Credit Hours TPA 2220 - Lighting Design 3 Credit Hours TPA 2232 - Introduction to Costuming Technology 3 Credit Hours TPA 2276C - Entertainment Technology - Crafts 3 Credit Hours Total Semester Hours: 13	 √ √ √
Second Year	
Fall Semester Natural Science General Education Course 3 Credit Hours Humanities General Education Course 3 Credit Hours Speech Additional General Education Course 3 Credit Hours TPA 2292 - Technical Theatre Lab III 2 Credit Hours TPP 2110 - Acting I 3 Credit Hours Total Semester Hours: 14	 √
Spring Semester	

General Education Mathematics Course 3 Credit Hours	√
THE 2000 - Theatre Appreciation 3 Credit Hours † ♦ ¶	
TPA 1940 - Internship in Theatre Design or Production 3 Credit Hours	
TPA 2301 - Technical Theatre Lab IV 2 Credit Hours	
TPA 2600 - Stage Management 3 Credit Hours	
Total Semester Hours: 14	
Total Program Hours: 60	
* Courses with √ can also be used in the Companion Certificate indicated: STGT - Stage Technology (Theater & Entertainment) (CCC)	

College Credit Certificate

Stage Technology (Theater & Entertainment) (CCC)

Admission Program of Study Code STGT

State CIP Code 0650050201

Students who successfully complete this certificate may be eligible to receive credits towards one of the following Theatre and Entertainment A.S. degree options:

- Theater and Entertainment Technology - Acting Specialization Option (AS) (State CIP Code 1650050202)
- Theater and Entertainment Technology - Costuming Specialization Option (AS) (State CIP Code 0650050202)
- Theater and Entertainment Technology - Technical Theater Specialization Option (AS) (State CIP Code 0650050202)

Core Courses

THE 2304 - Script Analysis

3 Credit Hours

(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

TPA 1210 - Stagecraft

3 Credit Hours

(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use

of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

Total Core Credits Required: 17

Total Program Credits Required: 17

Welding

Vocational Certificate

Welding Technology (CCP)

Admission Program of Study Code WELT

State CIP Code 0648050805

This program offers a broad foundation of knowledge and skills to prepare students for employment in the welding industry.

Basic Skills Requirements: The student must be exempt or attain a **9th grade level** on each section of the TABE exam: Math, Language and Reading.

Core Courses

PMT 0106C - Welder Helper

150 Clock Hours
(Fall, Spring)

This course provides instruction in shop safety, the use of safety procedures and protective equipment needed in a welding shop. Course includes basic shop math, shop safety, welding equipment setup/teardown procedures.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0111C - Metal Preparation

150 Clock Hours
(Fall, Summer)

This course provides instruction in different metal preparation processes including: thermal preparation (oxygen/fuel cutting, carbon arc cutting, plasma torch cutting). The student will also learn mechanical preparation (band saw, grinder, power brush, and other metal prep equipment).

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides instruction and demonstration using Shielded Metal Arc Welding (SMAW). Topics include visually inspect of welds, and basic SMAW technical terminology. Basic structural welding techniques will be demonstrated in accordance with American Welding Society (AWS) D1.1 Structural Welding Code. Tack welding and metal joint fit of carbon steel is covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0122C - Basic Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course introduces structural fillet welds in different joint positions in accordance with AWS D1.1 Structural Welding Code. Fillet welds will be performed on carbon steel plate of various thicknesses.

Prerequisite(s): PMT 0121C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides the student with instruction on joint design, joint preparation, and fit-up, and performance of groove welds with backing. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds with backing and make acceptable groove welds with backing using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0122C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Spring, Summer)

This course provides the student with advanced instruction on joint design, joint preparation, and fit-up, and performance of open groove welds. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of open groove welds and make acceptable open groove welds in all positions using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0126C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0134C - Gas Metal Arc Welding (GMAW)

50 Clock Hours
(Spring, Summer)

This course provides instruction and demonstration using the various transfer methods and techniques of Gas Metal Arc Welding (GMAW). Topics included are safety, equipment set-up, joint design and preparation, and gases.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0145C - Flux-Core Arc Welding (FCAW)

240 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Flux-Core Arc Welding (FCAW) and basic understanding of pipe welding. Welding symbols and blueprint reading are covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0155C - Gas Tungsten Arc Welding (GTAW)

160 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to gas tungsten arc welds. Topics included are safety, equipment set-up, joint design and preparation, and

gases. Students study basic Gas Tungsten Arc Welding (GTAW), and basic understanding of pipe welding.

Total Program Hours Required: 1050

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Welding Technology (CCP) (WELT) - Day Schedule
Fall Semester
PMT 0106C - Welder Helper 150 Clock Hours
PMT 0111C - Metal Preparation 150 Clock Hours
PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0122C - Basic Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW) 75 Clock Hours
Total Semester Clock Hours: 525
Spring Semester
PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0134C - Gas Metal Arc Welding (GMAW) 50 Clock Hours
PMT 0145C - Flux-Core Arc Welding (FCAW) 240 Clock Hours
PMT 0155C - Gas Tungsten Arc Welding (GTAW) 160 Clock Hours
Total Semester Clock Hours: 525
Total Program Clock Hours: 1050

Welding Technology (CCP) (WELT) - Night Schedule
Spring Semester
PMT 0106C - Welder Helper 150 Clock Hours
PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW) 75 Clock Hours
PMT 0122C - Basic Shielded Metal Arc Welding (SMAW) 75 Clock Hours

PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW) 75 Clock Hours

Total Semester Clock Hours: 375

Summer Semester

PMT 0111C - Metal Preparation 150 Clock Hours

PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW) 75 Clock Hours

PMT 0134C - Gas Metal Arc Welding (GMAW) 50 Clock Hours

Total Semester Clock Hours: 275

Fall Semester

PMT 0145C - Flux-Core Arc Welding (FCAW) 240 Clock Hours

Total Semester Clock Hours: 400

Total Program Clock Hours: 1050

Welding Technology - Advanced (CCP)

Admission Program of Study Code WELA

State CIP Code 0648050806

This program offers a broad foundation of knowledge and skills to prepare students for employment in the welding industry.

Core Courses

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding

200 Clock Hours

(Offered as needed)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the Shielded Metal Arc Weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to demonstrate pipe positions, proper electrodes selection, proper joint geometry, joint preparation, fit-up, and proper SMAW pipe welding techniques in accordance with applicable codes.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0171C - SMAW-GTAW Pipe Welding

400 Clock Hours
(Offered as needed)

This course is designed to provide the students with skills in welding carbon steel pipe using Shielded Metal Arc Weld process and Gas Tungsten Arc Weld (GTAW) processes using proper filler metals in the 2G, 5G, and 6G positions. Upon completion, students should be able to perform shielded metal arc welding process and gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in the 2G, 5G, and 6G position in accordance with the applicable code.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0173C - Specialty Pipe Welding

150 Clock Hours
(Offered as needed)

This courses covers advanced pipe welding and is designed to build advanced GTAW skills. This course covers advanced Gas Tungsten Arc Welding (GTAW) on alloy pipe and heavy wall carbon pipe.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Total Program Hours Required: 750

Suggested Academic Plan

This program admits students in the fall/spring/summer. Below is a sample academic plan for these students in this clock hour program.

Welding Technology - Advanced (CCP) (WELA) - Day Schedule
Summer Semester PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding 200 Clock Hours Total Semester Clock Hours: 200
Fall Semester PMT 0171C - SMAW-GTAW Pipe Welding 400 Clock Hours PMT 0173C - Specialty Pipe Welding 150 Clock Hours Total Semester Clock Hours: 550

Total Program Clock Hours: 750

Welding Technology - Advanced (CCP) (WELA) - Night Schedule

Spring Semester

PMT 0171C - SMAW-GTAW Pipe Welding 400 Clock Hours

Total Semester Clock Hours: 400

Summer Semester

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding 200 Clock Hours

PMT 0173C - Specialty Pipe Welding 150 Clock Hours

Total Semester Clock Hours: 350

Total Program Clock Hours: 750

Unmanned Vehicle/Drone

Associate in Science

Unmanned Vehicle Systems Operations - Payload Specialist Specialization (AS)

Admission Program of Study Code DRO3

State CIP Code 1615080102

General Education

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MAC 1105 - College Algebra

3 Credit Hours ◆
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHI 2600 - Introduction to Ethics

3 Credit Hours ◆ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHY 1020 - Physical Science

3 Credit Hours ◆
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

Total General Education Credits Required: 18

Core Courses

ASC 2560C - Unmanned Aerial Vehicles & Systems

5 Credit Hours
(Spring)

This course is a survey of unmanned aerial vehicles (UAV) and systems, emphasizing the military and commercial history, growth and applications of UAVs. Course will include basic acquisition, use and operation of UAVs with an emphasis on operations.

Prerequisite(s): ATT 1100

ASC 2564C - Unmanned Vehicle Security

4 Credit Hours
(Spring)

Participants will develop an understanding of the digital operations of an unmanned vehicle. Methods of securing digital information during the upload and downloading functions will be explored.

ASC 2949C - Unmanned Systems Practicum

4 Credit Hours
(Spring)

Practical application in a clinical setting of knowledge acquired in the classroom.

ATT 1100 - Private Pilot Ground School

3 Credit Hours
(Fall)

An introductory survey of the subjects pertaining to flight; aircraft operation and performance, weather, pilotage, air traffic control and Federal Aviation Regulations in preparation for the Federal Aviation Administration Private Pilot Written examination.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

Total Core Credits Required: 29

Specialization Elective Courses

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

Total Specialization Elective Credits Required: 15

Total Program Credits Required: 62

Suggested Two Year Academic Plan

This program admits students in the fall/spring/summer semester(s). Below is a sample academic plan for these students admitted in the identified semester.

Unmanned Vehicle Systems Operations (AS)
First Year
Fall Semester
ENC 1101 - English Composition I 3 Credit Hours ♦ ▲ ¶
ATT 1100 - Private Pilot Ground School 3 Credit Hours
PHI 2600 - Introduction to Ethics 3 Credit Hours ♦ † ¶
ETI 1710 - Occupational Safety 3 Credit Hours
SLS 2505 - Critical Thinking 3 Credit Hours
Total Semester Hours: 15
Spring Semester

MAC 1105 - College Algebra **3 Credit Hours** ♦

ENC 2210 - Technical Report Writing **3 Credit Hours**

ETM 1005C - Basic Mechanical Operations **3 Credit Hours**

ASC 2560C - Unmanned Aerial Vehicles & Systems **5 Credit Hours**

Specialization Technical Elective **3 Credit Hours**

Total Semester Hours: 17

Second Year

Fall Semester

POS 1041 - American Government **3 Credit Hours** ♦ ¶ Ω

PHY 1020 - Physical Science **3 Credit Hours** ♦

Specialization Technical Elective **3 Credit Hours**

Specialization Technical Elective **3 Credit Hours**

PGY 1801C - Digital Photography I **4 Credit Hours**

Total Semester Hours: 16

Spring Semester

ASC 2564C - Unmanned Vehicle Security **4 Credit Hours**

ASC 2949C - Unmanned Systems Practicum **4 Credit Hours**

Specialization Technical Elective **3 Credit Hours**

Specialization Technical Elective **3 Credit Hours**

Total Semester Hours: 14

Total Program Hours: 62

Developmental Education

Developmental Education Overview

Developmental education courses are designed to improve students' skills in English, reading, and mathematics and prepare them for success in their college level courses, career fields, and/or the workplace. SLS 1101 - College Success, a college credit course, provides curriculum that helps improve the more general abilities students need to succeed in college, including time-management skills, test-taking skills, and note-taking strategies.

Free instructional support is also provided with walk-in Math tutoring in the Math Lab and individual tutoring appointments for a variety of subjects in the Academic Success Center. Online tutoring is also available through RaiderNet and through the Academic Success Center.

Successful completion of the developmental requirement is defined as:

- A grade of "C" or higher in each required developmental course and
- Attainment of a passing score on each required developmental exit examination.

Students enrolled in developmental courses may, at the same time, take college credit courses for which they are qualified. In this manner, a student may begin earning credits that apply toward his/her program of study while completing developmental requirements.

Placement Testing

A student's placement test scores ensure accurate placement in Developmental courses. However, some students are exempt from placement testing, although they may opt to take the placement test in order to gauge their readiness for college-level work.

Exempt Students

Exempt students are defined by Florida Administrative Code 6A-10.0315 and Florida Statute 1008.30 as Active Duty Military students or students who have graduated from a Florida high school since 2007 and are not required to take a placement test or take Developmental Education courses. Exempt students who choose to take a placement test to measure their college readiness are not bound by the scores to enter developmental education; however, they may elect to enroll in developmental education. See the Placement Chart below for course placement scores. Any Navigator or the appropriate department chair can provide the permission required for some courses.

Non-Exempt Students

Non-exempt students whose entry level placement scores are below the levels specified in Florida Administrative Code are required to enroll in the appropriate developmental courses. They must take the placement test and will be placed based on their scores, as outlined in the Placement Chart.

Math Courses Flow Chart

Math Courses Flow Chart

Placement Chart

Math Placement Levels

TEST	MAT 0018 - Developmental Mathematics I	MAT 0028 - Developmental Mathematics II	MAT 0056 - Developmental Mathematics Module	MAT 0157 - Modularized Developmental Mathematics II	MAT 1033L - Intermediate Algebra Laboratory *	MAT 1033A - Intermediate Algebra *	MAC 1105 - College Algebra or higher
PERT	50-95	96-113	105-109	96-113	110-122	114-122	123-150
ACT	<19 PERT Required	<19 PERT Required	<19 PERT Required	<19 PERT Required	<19 PERT Required	19-20	21-36
SAT	<24 PERT Required	<24 PERT Required	<24 PERT Required	<24 PERT Required	<24 PERT Required	24-26	>26

*Students scoring 110-113 on the PERT Math test may enroll in MAT 1033A if they also enroll in MAT 1033L. Please see a Navigator.

Reading Placement Levels				
TEST	ENC 0017 - Integrated Reading and Writing I	ENC 0027 - Integrated Reading and Writing II	REA 0056 - Developmental Reading Module	ENC 1101 - English Composition I
PERT	50-83	84-105	96-105	106-150 & Writing 103-150
ACT	≤ 18 PERT Required	≤ 18 PERT Required	≤ 18 PERT Required	Reading ≥ 19 & English ≥ 17
SAT - Reading	<24 PERT Required	<24 PERT Required	<24 PERT Required	24 and above

English Placement Levels					
TEST	ENC 0017 - Integrated Reading and Writing I	ENC 0027 - Integrated Reading and Writing II	ENC 1101L - English Composition I Lab *	LIN 1670 - Writing and Grammar	ENC 1101 - English Composition I *
PERT	50-89	90-102	100-116	103-116 Strongly Recommended	103-150 & Reading 106-150
ACT	≤ 16 PERT Required	≤ 16 PERT Required	≤ 16 PERT Required	17-20	17
SAT - Writing	<25 PERT Required	<25 PERT Required	<25 PERT Required	25 and above	25 and above

and Language						

*Students scoring 100-102 on the PERT English test may enroll in ENC 1101 if they also enroll in ENC 1101L. Please see a Navigator.

Note: Students are required to enroll in the course based on their lowest PERT score in either Reading or English.

Alternative Developmental Instruction

Florida law requires that all students whose placement test scores indicate the need for remediation be given the opportunity to satisfy the remediation requirement through developmental instruction or through alternate instructional options. Examples of alternate options include independent study, non-credit courses, and instruction through other colleges and private providers. Students who elect to pursue one of the alternate options must meet with an Academic Advisor prior to registration in order to discuss the impact of the choice on his/her degree progress.

Repeat Enrollments and Attempts in Developmental Courses

Per Florida Statute, a student is eligible for no more than three attempts to successfully complete a given developmental course. All official enrollments after Summer of 1997 are considered attempts, regardless of the grade received. In documented cases of hardship or extenuating circumstances, an exception to the requirement may be granted. Exceptions must be appealed through the Registrar prior to registration. However, if a withdrawal is processed prior to the close of the Drop/Add period, or if audit status is granted prior to the close of the Drop/Add period, the enrollment will not be counted as an attempt. Students may not audit a developmental course unless advance approval is granted through the Office of Teaching and Learning. If a student receives a grade of D, F, W, WN, X, or U in a developmental course, he/she may repeat the course to improve the grade and meet developmental requirements. On the third attempt, however, the student will be awarded the letter grade earned (A, B, C, D, F, S, U, or P) and will not be allowed to withdraw or to re-enroll. The prohibition for re-enrollment extends to any public postsecondary institution in Florida.

Once a student has exhausted his/her course attempts in a given developmental area, the only ways to satisfy the developmental requirement are: a) retake the placement examination and demonstrate a score above the established minimum for that subject area, or b) provide documentation of successful completion of an equivalent or higher-level course at a private postsecondary institution. Students not eligible to re-enroll in a given developmental course may, however, continue enrollment at the college in other developmental courses, or in other courses for which they are eligible. In the latter case, an appeal through Enrollment Services may be necessary to continue enrollment.

3rd and 4th Attempts

Florida Statutes also mandate that after the second attempt in a given developmental course, a student will be required to pay the full cost of instruction (approximately four times the usual matriculation fees) to repeat the course. In documented cases of financial hardship or extenuating circumstances, an exception to the full cost requirement may be granted. Exceptions must be appealed through the Registrar prior to registration.

Alternatives for Students No Longer Eligible for College Developmental Enrollment

Once a student has exhausted their course attempts in a given developmental area, the only ways to satisfy the developmental requirement are a) retake the placement examination and demonstrate a score above the established minimum for that subject area or b) provide documentation of successful completion of an equivalent or higher-level course at a postsecondary institution.

NWF State College is committed to student success and has developed several strategies for students in this circumstance. The student should work closely with an Academic Advisor to identify alternatives for which he/she is eligible and to develop a plan for continued study. These strategies are also appropriate for an individual who is subject to the full cost requirement and is unable to afford the increased cost of enrollment.

1. The student may continue enrollment in other appropriate developmental courses, or continue enrollment in other appropriate developmental and college credit courses and pursue one of or a combination of the following strategies. After an appropriate skill-building effort, the student may then retake the placement exam.
 - Enroll in an appropriate alternate developmental course in the subject area
 - Enroll in an adult basic education class(es) to build skills in the given area
 - Pursue individualized study in the Academic Success Center and/or Math Lab to build skills in the given area
 - Work with a college tutor to build skills in the given area
 - Enroll in a college non-credit basic skill refresher course in the given subject/skill area
 - Attend a Skill Refresher Workshop(s) in the given subject/skill area
2. The student may consider a revised program of study which does not carry a developmental requirement. The college offers several college credit and vocational certificates for which placement testing and developmental instruction are not applicable. Students pursuing an A.S. degree may wish to change to a companion college credit certificate which offers the technical skills needed for employment. After completion of the certificate courses, the student may acquire sufficient skills to perform better on the placement examination and eventually progress to an associate degree program of study. See the "Certificates" section of this catalog.
3. The student may temporarily "stop-out" of credit courses, concentrate on skill development, through his/her own resources, then retake the placement examination.
4. The student may enroll in an equivalent or higher level course in the subject area at another postsecondary institution. Upon successful completion of that course work, the student may transfer the course back to NWF State College and/or re-take the placement exam. Students wishing to pursue this option should work closely with an advisor to be sure the alternate course(s) selected will satisfy the developmental requirement. Ideally, the student should submit a transient study form and secure advance approval. Depending on the nature and level of the transfer course, the student may still need to demonstrate minimum skills through the placement exam.

College and Personal Success Classes

Courses focusing on college and personal success strategies are beneficial to a student's academic career and can be used as an elective in some degree programs. NWF State College offers the following college credit courses:

- SLS 1101 - College Success is a recommended course for all students enrolled in the first level of developmental instruction of reading, mathematics or English, or for any student that is required to take any two or more developmental courses regardless of the level.
- SLS 1201 - Service Learning Seminar is required for Honors Scholarship students.

Adult Education

- ABE
- GED
- ESOL
- Transition to College

NWF State College offers a comprehensive program of non-credit instruction designed to improve the employability and life skills of adult students. Courses are offered in Adult Basic Education (ABE), English for Speakers of Other Languages (ESOL), and GED preparation. Each adult education course is offered for a small set fee each semester, which includes materials and supplies. The adult education program is designed for adults who have academic skills below the ninth grade level, those who do not have a high school diploma or those who have a primary language other than English. Special program emphasis is placed on preparing the student to become college ready. Students enrolled in adult education will receive free transition services to become college ready. These services include preparation for the college placement test, career exploration and assessment, developing a career pathway, financial aid and scholarship assistance, and career readiness skills. Visit the Adult Education/GED Preparation webpage or call the Adult Education Department at (850) 729-5387 for more information.

Adult Basic Education (ABE)

Adult Basic Education (ABE) at NWF State College consists of small group instruction with lab support leading to the mastery of the basic skills needed by adults to function in today's complex society. ABE classes are designed for students who want to improve their basic skills in reading, writing, and mathematics. The curriculum is divided into four literacy levels: beginning, basic, intermediate, and advanced.

General Education Development (GED) Preparation

GED classes prepare students to take the General Education Development examination, which leads to the State of Florida High School Diploma. Instruction is targeted at the secondary level with subject content in the areas of writing, social studies, science, reading, and mathematics.

The NWF State College Testing Center offers the Official GED Examination throughout the academic year. Students must register in advance for the exam and pay an examination fee. Testing is offered at the Niceville Campus.

English for Speakers of Other Languages (ESOL)

ESOL classes are eligible to students who have a primary language other than English. ESOL classes are designed to prepare students to communicate effectively in a multi-faceted society. This course is divided into six literacy levels. Students are administered the Comprehensive Adult Student Assessment Systems (CASAS) test for placement into a literacy level. Course content is compatible with principles of language acquisition for adult learners of English and includes skills useful in both workplace life and academic applications.

Transition Services to Postsecondary Education

College credit transition services are available to GED graduates and adult education students preparing for the GED. College readiness services include the development of a transition plan that includes career assessment, academic tutoring, peer mentoring by college credit students, as well as scholarship, financial aid, and college credit admissions assistance.

Professional and Continuing Education

- Community Education
- Costa Leadership Institute
- Fitness and Wellness
- Jr. Raiders Kid's Programs
- Personal Enrichment
- Online Learning
- Meeting and Special Event Facilities

The Professional and Continuing Education Department at Northwest Florida State College offers a variety of quality non-credit programs. These programs include personal enrichment for the lifelong learner, business skills training for professionals, online classes, special event space rentals, fitness and wellness classes, kid's programs and community programs. Taught by experienced professionals, these programs are for all ages and offered during the morning, afternoon, evening and weekends, convenient for people with busy lives. Our programs are conducted throughout Okaloosa and Walton Counties and include:

Community Education

In partnership with community organizations, ecotourism programs and state/court mandated program (Motorcycle Safety, Advanced Motorcycle Rider, Divorce Classes, Guardianship Classes, Eco Tours with Choctawhatchee Basin Alliance, American Heart Association CPR trainings, and more)

Costa Leadership Institute

The Costa Leadership Institute provides professional and business skills training (Computer/Technology, Leadership, Communications, Preparation Exam/Certification Courses, Certification Exams, Continuing Education Units for Designated Professionals, and more)

Fitness and Wellness

Group aerobic and wellness classes at our Niceville Campus and DeFuniak Springs Center (Ballroom Dancing, Zumba, Tia Chi, Yoga and more). *The Niceville Campus also offers gym memberships to the Raider Wellness Center, Niceville Campus.*

Jr. Raiders Kid's Programs

Summer Kid's On Campus, Sports Camps (June and July Kid's On Campus and basketball, baseball and softball sports campus conducted by NWFSC Raider's coaches)

Personal Enrichment

A variety of non-credit personal enrichment courses are available throughout the year. Topics range from computer skills, finance, consumer education and a variety of courses to meet the needs of the community. Fees vary with the length and type of course offered; most classes are held on the Niceville Campus.

Online Learning

Online workforce training and personal enrichment classes offered through Ed2go

Meeting and Special Event Facilities

Offering meeting and special event facilities at our main campus in Niceville and centers in Fort Walton Beach, Crestview, DeFuniak Springs and South Walton.

Articulation Agreements

- Florida Statewide Articulation for AA Degree
- Local NWF Agreements with Other Institutions
- Local NWF Internal Agreements
- NWF Certificate to AS Degree Career Paths
- Statewide Articulation Agreements

What is an Articulation Agreement?

Florida has instituted a variety of methods to facilitate student transfer of credit, otherwise known as articulation agreements. The Statewide Articulation Manual provides statewide standards for awarding advanced placement credits, high school dual enrollment credit, transfer of credit between institutions, and related topics. The Florida Department of Education, through the Articulation Coordinating Committee (ACC), also facilitates statewide consistency among institutions that award credit for certain professional credentials, such as industry certifications, licenses, and certificates. In addition to statewide articulation agreements, NWF State College has local articulation agreements with various other institutions, as well as internal agreements for specific NWF State College programs.

Florida Statewide Articulation Agreement for AA Degree (State Board of Education Rule 6A-10.024)

Florida Community College **Associate in Arts (AA)** graduates are guaranteed the following rights under the Statewide Articulation Agreement (State Board of Education Rule 6A-10.024):

- Admission to one of the state universities, except to Limited Access* programs.
- Acceptance of at least 60 credit hours by the state university toward the baccalaureate degree.
- Adherence to university requirements and policies based on the catalog in effect at the time the student first entered a community college, provided the student maintains continuous enrollment.
- Transfer of equivalent courses under the Statewide Course Numbering System.
- Acceptance by the state universities of credit earned in accelerated programs (e.g., CLEP, DANTES, AP, PEP, Dual Enrollment, Early Admission and International Baccalaureate).
- No additional General Education Core requirements.
- Advance knowledge of selection criteria for Selective Admission* programs.
- Equal opportunity with native university students to enter Selective Admission* programs.

Should any guarantee be denied, students have the right of appeal. Each state university, and state college shall make available established appeal procedures through the respective articulation officers. At NWF State College, students may contact the Vice President of Teaching and Learning or the Executive Director of Student Success Navigation.

** Selective Admission is the designation given to programs that require additional admission requirements which are more selective than general admission requirements. These may include the following: increased total GPA and test scores; additional courses and prerequisites; and auditions and portfolios.*

NWF State College Certificate to AS Degree Career Paths

Many of the technical certificate programs offered by NWF State College provide the initial step in meeting selected course requirements for an A.S. degree in a related area. Courses from those certificates are the same as or equivalent to comparable courses in the companion degree program. Likewise, courses used in the degree program may be applied to a certificate in a related area; in many cases, completion of the technical courses in the degree program can automatically qualify the student to receive the companion certificate.

A list of all AS degrees and corresponding articulated certificates is shown on the Certificate to AS Degree Career Paths page.

For a side by side view of the AS degrees and corresponding certificates see the AS Degree - Companion Certificates 2017-18 [.pdf]

Local NWF State College Agreements With Other Institutions

Embry-Riddle Aeronautical University and NWF State College

- Admission criteria and transfer of credits

Florida A&M University and NWF State College

- NWFSC Associate of Arts degree and Florida A&M University (FAMU) School of Architecture

Florida State University - Panama City and NWF State College

NWFSC Associate of Arts degree and Florida State University - Panama City

The Connect to FSU-PC Program offers collaborative academic advising from FSU Transfer Advisors and an on-site FSU-PC Program Coordinator located on the NWF State College's Niceville campus. Students will receive access to all FSU-PC and Gulf Coast State College services and benefits. FSU-PC students receive all of the rights and privileges as a Tallahassee student. Students who complete an associate of arts degree at NWF State College are guaranteed admissions at FSU-PC, contingent upon meeting the minimum transfer requirements.

- Admission to FSU with no application fee
- Convenient transfer of academic records and courses from NWF State College
- Affordable bachelor's degree from an accredited and respected public university
- Accelerated degree options
- Faculty and staff committed to academic success
- Flexible class schedules to meet busy lifestyles
- Experienced academic advisors to assist in satisfying degree requirements
- Library privileges at both institutions
- FSU email account
- FSU ID card

NWF2UWF

The NWF2UWF Program offers collaborative academic advising from UWF Transfer Advisors and an on-site NWF2UWF Program Coordinator located on the NWF State College's Niceville campus. Students will also receive access to UWF services and benefits before they enroll. Students who complete an associate of arts degree at NWF State College are guaranteed admissions at UWF, contingent upon meeting the minimum transfer requirements.

- Admission to UWF with no application fee
- Convenient transfer of academic records and courses from NWF State College
- Affordable bachelor's degree from an accredited and respected public university
- Options to complete a bachelor's degree at one of three University of West Florida's locations:
 - Main Campus - Pensacola
 - Emerald Coast - Ft. Walton Beach

- Online Campus
 - Faculty and staff committed to academic success
 - Flexible class schedules to meet busy lifestyles
 - Experienced academic advisors to assist in satisfying degree requirements
 - Library privileges at both institutions
 - UWF email account
 - UWF ID card
 - Apply via www.uwf.edu/pathways
-
- NWF State College Bachelor of Science in Education (BSE) Degree and UWF Master's Degree in Exceptional Student Education or Master of Education Degree - Curriculum and Instruction

University of Central Florida - Online

The University of Central Florida – Online articulation offers collaborative academic advising from UCF Online Student Success Coach while attending NWFSC. Students who complete an associate of arts degree at NWF State College are guaranteed admissions at UCF, contingent upon meeting the minimum transfer requirements.

- Admission to UCF with no application fee
- Convenient transfer of academic records and courses from NWF State College
- Affordable bachelor's degree from an accredited and respected public university
- Faculty and staff committed to academic success
- Experienced academic advisors to assist in satisfying degree requirements

University of South Alabama*

The University of South Alabama articulation offers collaborative academic advising from USA while attending NWFSC. Students who complete an associate of arts degree at NWF State College are guaranteed admissions at USA, contingent upon meeting the minimum transfer requirements.

- Convenient transfer of academic records and courses from NWF State College
- Affordable bachelor's degree from an accredited and respected public university
- Faculty and staff committed to academic success
- Experienced academic advisors to assist in satisfying degree requirements

*Articulation pending at the time of this publication. Details are subject to change or be revised.

Western Governors University

The Western Governors University articulation offers collaborative academic advising from WGU while attending NWFSC. Students who complete an associate degree at NWF State College are guaranteed admissions at WGU, contingent upon meeting the minimum transfer requirements.

- Easy Admission
- Associate of Applied Science, Associate of Science and Associate of Arts articulations are available
- Convenient transfer of academic records and courses from NWF State College
- Affordable bachelor's degree from an accredited and respected public university
- Faculty and staff committed to academic success
- Experienced academic advisors to assist in satisfying degree requirements

Local NWF State College Internal Articulation Agreements

Internal Articulation Agreements

Public Safety

- Law Enforcement and/or Correctional Officer (CCP) certificates to the Criminal Justice Technology (AS) degree
- Florida State Fire Marshall Firefighter I Certification to NWF State College course FFP 0010
- Emergency Medical Technician (EMT-Basic) (CCC) and/or Paramedic (EMT-P) (CCC) certificates to the Emergency Medical Services (AS) degree
- American Council on Education Special Forces Advanced Tactical Practitioner/18 Delta to the Paramedic (CCC) certificate

Health Sciences

- Dental Assisting (CCP) certificate to Health Services Management (AS) degree
 - Students who successfully complete the Dental Assisting program and pass the Dental Assisting National Board (DANB) Certificate (CDA) may apply credits towards the requirements for the Health Services Management AS Degree.
- NWF State College Nursing Department Articulation Plan.
 - LPN to Nursing (AS) degree

Early Childhood Education

- Child Development AS Degree to requirements for the Early Childhood Education, Birth through Four BS degree

Statewide Articulation Agreements

The State Board of Education approved the Statewide Career and Technical Education Articulation Agreements which are based on industry certification. This supports the Department's Next Generation Areas of Focus effort Number 3 —"to expand opportunities for postsecondary degrees and certificates." These agreements are intended to be a minimum guarantee of articulated credit and do not preclude institutions from granting additional credit based on local agreements. Individual agreements are listed below.

Statewide Articulation Agreements

AS to Baccalaureate Degree Articulation Agreements

In Florida, A.S. degree curricula regularly include technical skills and theoretical knowledge, as well as, a required general education component that are designed to prepare an individual either for entry into the workforce or transfer into a related baccalaureate program. It is this combination of theory and practice that distinguishes the A.S. degree from the A.A. degree, with its traditional focus on the liberal arts and sciences. This valuable combination of knowledge and skills need not disqualify A.S. degree courses from transferability. Indeed, the competencies taught in the lower division at two-year colleges often duplicate competencies taught at universities in the upper division (in nursing, for example, or in certain information technology fields). The learning outcomes embedded in the A.S. degree programs often embody similar technical knowledge and skill sets. A complete list of articulated programs and hours can be viewed in the Florida Department of Education Career Ladder Agreements document.

Industry Certification to Associate in Applied Science (AAS) / Associate in Science (AS) Articulation Agreements

There are several acceleration methods associated with Industry Certification. These acceleration opportunities allow students who are progressing to the next level of education to earn a guaranteed number of college credits toward the AAS or AS degree. Each acceleration opportunity requires the student to demonstrate mastery of a specified level of competency. One example of this method is the Gold Standard Articulation Agreement, which includes identified industry certifications. As new agreements are developed they are added to the articulation list.

The Gold Standard Career pathways Articulation Agreements of Industry Certification provides information on the identified industry certifications approved by the Florida State Board of Education. Contact the Coordinator of Career and Technical Education at (850) 729-4956 for specific industry certification articulation options at NWF State College.

ATD to AAS/AS Articulation Agreements

The Applied Technology Diploma (ATD) consists of a course of study that is part of an associate in science (AS) or an associate in applied science degree (AAS), is less than sixty (60) credit hours, is approximately fifty (50) percent of the technical component (non-general education), and leads to employment in a specific occupation. An applied technology diploma program may consist of either clock hour credit or college credit. The transfer of the applied technology diploma to an associate degree is guaranteed for a period of three (3) years following the date of the award of the applied technology diploma. For a listing of specific statewide ATD to AAS/AS articulation agreements approved by the ACC, see: ATD to AAS/AS Articulation Agreements.

Transfer Agreement with Independent Colleges and Universities in Florida

The Florida College System has a transfer agreement with many of the Independent Colleges and Universities of Florida (ICUF). This allows AA degree graduates to transfer into a private college or university with the guarantee that a student will enter as a junior, receive at least 60 credit hours toward the bachelor's degree, and receive recognition for the general education core that was completed at an institution within the Florida College System. Most of the 31 ICUF institutions have recognized this agreement. To view a copy of the ICUF articulation agreement with the Florida College System, see: Independent Colleges and Universities Articulation Agreement.

Other Statewide Agreements

The Florida College System also has established articulation agreements with private colleges and other universities. To view specific agreements, see: <http://www.fldoe.org/articulation/articulation-agreement.asp>.

Accreditations

- Southern Association of Colleges and Schools Commission on Colleges
- Dental Assisting (CCP)
- Law Enforcement (CCP)
- Nursing (BSN)
- Paramedic (CCC)
- Welding Technology (CCP)

College Accreditation

Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

Northwest Florida State College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates, associate and baccalaureate degrees. Contact the Southern Association of Colleges and Schools at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Northwest Florida State College.

Program Accreditations

Dental Assisting (CCP)

The program in dental assisting is accredited by the Commission on Dental Accreditation [*and has been granted the accreditation status of "approval with reporting requirements, with intent to withdraw August 2020"*]. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: <http://www.ada.org/en/coda>.

Law Enforcement (CCP)

The following NWF State College instructional programs are certified by the Florida Criminal Justice Standards and Training Commission (CJSTC) through the Florida Department of Law Enforcement (FDLE). The programs underwent a re-accreditation review process in 2015 and were all re-certified for a five (5) year period. The Florida Criminal Justice Standards and Training Commission can be contacted at (850) 410-7000. The website for the Criminal Justice Standards & Training Commission is: <https://www.fdle.state.fl.us/CJSTC/CJSTC-Home.aspx>.

- Correctional Officer Basic (CCP)
- Crossover from Corrections to Law Enforcement Program (CCP)
- Law Enforcement Officer Basic (CCP)

Nursing (ASN)

The AS Nursing program at Northwest Florida State College is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

(404) 975-5000

<http://www.acenursing.us/accreditedprograms/programSearch.htm>

Nursing (BSN)

The baccalaureate Nursing program is accredited by the Commission on Collegiate Nursing Education (<http://www.ccnaccreditation.org>).

Paramedic (CCC)

The NWF State College Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (<http://www.caahep.org>) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756. Telephone (727) 210-2350.

Radiography (AS)

The Radiography Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850 Chicago, IL 60606-3182, Email: mail@jrcert.org, Phone: (312) 704-5300, Fax: (312) 704-5304.

Welding Technology (CCP)

The Welding Technology program is accredited by the National Center for Construction Education and Research as a Journey-level Professional Welder. The program's accreditation was most recently awarded during February 2014 and re-evaluation occurs every three years. As the accrediting body for the industry, NCCER establishes the benchmark for quality training and assessments. The National Center for Construction Education and Research can be contacted at (888) 622-3720 or at 13614 Progress Boulevard, Alachua FL 32615. NCCER's web address is: <http://nccer.org/new-to-nccer>.

Course Descriptions

- All Courses
- Adult Education Courses
- Developmental Education Courses
- Directed Independent Study
- General Course Information
- Lower Division College Credit Courses
- Upper Division College Credit Courses
- Vocational Courses

Courses by Type (Subject Area)

Accounting

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2021 - Financial Accounting

3 Credit Hours
(Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours** ♦, equivalent, or higher

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours
(Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

ACO 1806 - Payroll Accounting

3 Credit Hours
(Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Adult Basic Education (ABE)

ABX 01__ - Adult Basic Education - Mathematics

The Adult Basic Education (ABE) Mathematics course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 02__ - Adult Basic Education - Reading

The Adult Basic Education (ABE) Reading course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 03__ - Adult Basic Education - Language Arts

The Adult Basic Education (ABE) Language Arts course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

Aeronautical Science

ASC 2560C - Unmanned Aerial Vehicles & Systems

5 Credit Hours
(Spring)

This course is a survey of unmanned aerial vehicles (UAV) and systems, emphasizing the military and commercial history, growth and applications of UAVs. Course will include basic acquisition, use and operation of UAVs with an emphasis on operations.

Prerequisite(s): ATT 1100

ASC 2564C - Unmanned Vehicle Security

4 Credit Hours
(Spring)

Participants will develop an understanding of the digital operations of an unmanned vehicle. Methods of securing digital information during the upload and downloading functions will be explored.

ASC 2949C - Unmanned Systems Practicum

4 Credit Hours
(Spring)

Practical application in a clinical setting of knowledge acquired in the classroom.

ATT 1100 - Private Pilot Ground School

3 Credit Hours
(Fall)

An introductory survey of the subjects pertaining to flight; aircraft operation and performance, weather, pilotage, air traffic control and Federal Aviation Regulations in preparation for the Federal Aviation Administration Private Pilot Written examination.

Anthropology, Archeology

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ANT 2100 - Introduction to Archaeology

3 Credit Hours ♦
(Offered as Needed)

Introduction to the fundamental principles, methods, and theories in archaeology. Includes a history of the development of archaeology, and examination of the nature of archaeological data and research, an introduction to

archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but non-western examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

Architectural Drafting

BCN 1230 - Building Construction Materials and Processes

3 Credit Hours

(Fall)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry.

BCN 1272 - Blueprint Reading for Commercial Construction

3 Credit Hours

(Fall, Spring)

A course to familiarize non-drafting students with techniques of blueprint reading and the fundamentals of construction methods that make blueprint reading meaningful.

BCN 1520 - Electrical Systems in Construction

3 Credit Hours

(Fall, Spring, Summer)

A course to familiarize students with electrical terminology, practices, methods, code requirements and safety and health in construction.

BCN 1567 - Plumbing and Gas Construction Practices

3 Credit Hours

(Fall, Spring, Summer)

A course to familiarize students with Plumbing and Gas code requirements, terminology, methods, practices, processes and safety and health used in building construction.

BCN 2231 - Building Construction Materials and Processes II

3 Credit Hours

(Spring)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry. The focus of the course will cover Divisions 9 through 16 of the construction industry.

BCN 2560 - Mechanical Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with mechanical trades terminology, methods, practices, code requirements processes, and safety and health criteria in mechanical construction.

BCN 2721 - Construction Management/Planning

3 Credit Hours
(Fall, Spring, Summer)

The course covers project development and organization from pre-construction site investigation to final completion. The course will include the management of project estimates, plans, schedules, operations and safety. The student will become knowledgeable about documents used in the construction industry for bid, contracts, zoning, permits, bonds, loans specifications and drawings. Cost engineering, procurement, value engineering and quality assurance will be covered. Cost management through job cost analysis and purchase order systems will also be covered.

BCT 1763 - Construction Safety and Health

3 Credit Hours
(Fall, Spring, Summer)

A basic course in construction safety and health, covering such topics as: theories of accident causation; workplace hazards; hazard analysis and prevention; accident reporting; OSHA construction standard and safety practices; environmental safety; violence in the workplace; ergonomics; ethics and safety; workers' compensation; and stress on the job.

BCT 2761 - Structural Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with structural terminology, practices, methods, code requirements and safety, and health criteria in construction.

BCT 2770 - Construction Estimating

3 Credit Hours
(Fall, Spring)

A course in estimating as it relates to the construction industry covering references, estimating methods, take-off organization and presentation; material take-off, cost estimating in heavy construction, mathematical formulas for estimating, quantity take-off from plan review, and computer estimating overview.

Prerequisite(s): BCN 1230, BCN 1272.

TAR 2121C - Architectural Drafting

3 Credit Hours
(Offered as needed)

Architectural design and development of residential and light commercial buildings to include: development and

construction of good architectural freehand lettering, VA and FHA approved residential house plans, "Good Sense" house plans as defined in the Arkansas Plan, and heat loss/heat gain calculations.

Prerequisite(s): ETD 1102 or ETD 1112 or equivalent.

Architecture

ARC 1131 - Architectural Presentation

3 Credit Hours
(Summer)

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C - Design 1.1

4 Credit Hours
(Fall)

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C - Design 1.2

4 Credit Hours
(Spring)

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 1301C.

ARC 2201 - Theory of Architecture

3 Credit Hours
(Fall, Spring)

An introduction to architectural theory, selected contemporary architectural theories and movements, and their evolution and historical basis. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ETD 1102.

ARC 2303A - Design 2.1

6 Credit Hours
(Fall)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 2201.

ARC 2304 - Design 2.2

6 Credit Hours
(Spring)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior.

Prerequisite(s): ARC 2303A.

ARC 2472 - Introduction to the Technology of Architecture

4 Credit Hours
(Summer)

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501 - Architectural Structures I

3 Credit Hours
(Offered as needed)

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the Technology of Architecture.

Prerequisite(s): any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2701 - Survey of History of Architecture, Part I

3 Credit Hours
(Offered as needed)

A critical exploration of the history and theory of architecture from pre-history through the end of the 13th century. Examination of the making and intent of significant buildings and sites tracing the developments that have given meaning to the built environment and brought order to the tectonics of architecture. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Art

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing

problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1750C - Pottery I

3 Credit Hours
(Fall, Spring, Summer)

The students shall be exposed to the production of pottery utilizing all known hand building techniques. Also includes introduction to potter's wheel and basic wheel fundamentals. The first half of course is hand building, the second half is devoted to development of skills on the potter's wheel. Students also learn how to glaze pottery and make glass. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1751C - Pottery II

3 Credit Hours
(Fall, Spring, Summer)

Continues hand building of Pottery I, but major emphasis is placed upon development skills utilizing the potter's wheel. Additional glazing experimentation is also emphasized.

Prerequisite(s): ART 1750C. Please refer to catalog section regarding audit enrollment.

ART 1905A - Independent Study – Art

1 Credit Hour
(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2331C - Figure Drawing II

3 Credit Hours
(Fall, Spring)

This class is a continuation of Figure Drawing I. Emphasis is on composition and self-expression in relation to the human figure. Exploration of media and content will be encouraged.

Prerequisite(s): ART 2330C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2500C - Painting I

3 Credit Hours
(Fall, Spring)

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing, and execution thereof within a variety of subject matter. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2501C - Painting II

3 Credit Hours
(Fall, Spring)

This course is a continuation of Painting I ART 2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed.

Prerequisite(s): ART 2500C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2540C - Water Color I

3 Credit Hours
(Fall, Spring)

An introduction to water media techniques applied to various subject matter through demonstrations and various lab experiences. Open to all students. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2541C - Water Color II

3 Credit Hours
(Fall, Spring)

Allows continued experience in more complex water color technique and subject matter. Emphasis is on composition and individual expression.

Prerequisite(s): ART 2540C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills.

Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours
(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

ART 2701C - Sculpture I

3 Credit Hours
(Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2703C - Sculpture II

3 Credit Hours
(Spring)

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach.

Prerequisite(s): ART 2701C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2930 - Art - Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

ART 2955 - Portfolio Development

3 Credit Hours
(Spring)

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation.

Prerequisite(s): ART 1201C, ART 1203C, ART 1300C, ART 1301C.

Art History

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ♦ ¶

(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶

(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2060 - Architecture History

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2930 - Art History – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

Astronomy

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Biology

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1080 - Essentials of Anatomy and Physiology

3 Credit Hours
(Fall, Spring)

This course surveys basic structure and function of the human body with emphasis on terminology and anatomy.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 1905 - Independent Study – Biology

1 Credit Hour
(Fall, Spring, Summer)

A course designed to (1) allow a student to complete part of a course taken elsewhere and thereby complete general education requirements, (2) to go deeper into special areas of interest.

This course may be taken up to four times for credit.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

Botany

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

Business

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1214 - Business and Supervision Terminology

2 Credit Hours
(Fall)

This course is designed for students to achieve mastery of the special vocabulary, jargon, and concept terminology associated with general business and supervision in the modern workplace. Students will apply the terms in common workplace scenarios and hypothetical situations, as well as in standard written documents and assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college.

instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 1942 - Internship Business

1 Credit Hour
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2947 - Academic Learning Field Studies I

1 Credit Hour
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2948 - Academic Learning Field Studies II

2 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in

a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2949 - Academic Learning Field Studies III

3 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours
(Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours
(Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours

(Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3930 - Business Project and Acquisitions Terms and Concepts

1 Credit Hour

(Fall)

Students will apply specialized terminology of project and acquisitions management in various communication venues including short written documents and summary analyses. Emphasis will be placed upon the latest terms, abbreviations and jargon applicable to the field. Students will research selected terms and concepts in various contemporary periodicals and publications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3933 - Business Research

1 Credit Hour

(Fall)

This seminar-style course, offered in group or individual format, provides an introduction to various references, databases, periodicals, journals and other publications essential to the research of contemporary business issues; also included are methods of accessing resources via the Internet, designing search strategies, citing Internet resources and evaluating research materials.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4454 - Business in a High Technology Environment

3 Credit Hours

(Spring)

Presents the special challenges and opportunities of managing a high technology firm or a traditional entity operating in the high technology environment; addresses software/information security, recruiting technical personnel, outsourcing, equipment security, updating equipment, telecommuting and similar issues.

Prerequisite(s): upper division standing and GEB 3031 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4930 - Special Topics: Project Management

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4933 - Special Topics: Management

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4934 - Special Topics: Business Administration

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) from the area of business administration in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4941 - Internship: Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 1040C - Introduction to Geographic Information Systems

3 Credit Hours

(Offered as Needed)

This course will provide students with an introduction to Geographic Information Systems (GIS). Lectures will include: What is GIS, GIS applications, fundamentals such as map projections, vector versus raster data models, creating and maintaining geographic databases, spatial analysis and modeling, cartography and map production. Lab Sessions will include the hands on use of the ArcGIS software. Students will receive a 180-day version of the software with their textbook that they can use at home to complete assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 2401 - GIS Applications in Social Science

3 Credit Hours

(Offered as Needed)

This course surveys the use of GIS for solving spatial problems in the social sciences. Examples from the fields of health, economic geography and real estate, housing, transportation, criminology, among others are used to illustrate how spatial techniques are used to address problems in a GIS environment. Special consideration will be given to the data needs of such operations, the implementation of methods in a GIS environment, and understanding the spatial assumptions and issues that underpin analyses.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours

(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

TRA 3132 - Procurement Management

3 Credit Hours

(Offered as Needed)

Purchasing is required by all types of goods-producing & service-providing organizations in such sectors as manufacturing, agriculture, health care, & government. This professional business function tries to buy the right good or service at the right quality, in the right quantity, at the right time, at the right price, from the right source, with delivery at the right place.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

TRA 4203 - Principles of Logistics

3 Credit Hours
(Offered as Needed)

Overview of logistics function within a firm and in the context of integrated vertical systems. Topics include customer service, information flow, inventory control, materials management, order processing, packaging, physical distribution.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Business Law

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4333 - Contract Formation and Administration

3 Credit Hours
(Fall, Spring)

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4931 - Acquisition Law Seminar

3 Credit Hours
(Spring)

This course addresses contract law as applicable to formation and administration of contracts with private and governmental agencies, with emphasis on the federal government. The following topics are also included: concepts of responsiveness and responsibility, bidding procedures, mistakes, negotiation procedures, changes, claims and dispute resolution. Students will explore the typical contracting problems that can lead to litigation.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Chemistry

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

Chinese

CHI 1120 - Mandarin Chinese I

**4 Credit Hours ♦
(Fall)**

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

CHI 1121 - Mandarin Chinese II

**4 Credit Hours
(Spring)**

This course is a continuation of Mandarin Chinese I with additional vocabulary and grammar. Pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language.

Prerequisite(s): CHI 1120 or an equivalent course with a minimum grade of "C".

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Coaching

PEO 2004 - Theory and Practice of Teaching a Specific Sport

**3 Credit Hours
(Offered as needed)**

This course is designed to provide knowledge of the rules, teaching progressions and strategies for competition. The course includes acceptable behavior and ethics for coaches. This course will be offered for the following specific sports: baseball/softball, basketball, football, golf, soccer, swimming, tennis, track and field/cross country, volleyball and wrestling.

PEO 2005 - Coaching Theory

**3 Credit Hours
(Offered as needed)**

This course is designed to provide knowledge of the characteristics, principles, ethics, and theories related to coaching sports in educational and recreational settings. Emphasis is placed on preparing coaches to train athletes to achieve optimal levels of performance.

College Success

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 1201 - Service Learning Seminar

1 Credit Hour
(Offered as needed)

A seminar course designed to enhance and reinforce the value of civic responsibility and to provide students with a community service program opportunity by volunteering in community agencies in the public and private sectors.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

Computer Science

CAP 2134C - Database Security

3 Credit Hours
(Spring)

This course is designed to provide the student with an understanding of database security concepts and practices. The objective of the course is to provide hands-on instruction in various database tasks that relate to securing the confidentiality, integrity and availability of information that is stored in a database. The student will be able to perform administrative tasks in different database management systems, as well as manage database user profiles, privileges, and roles. Different database application security models will be explored, as will the security advantages of utilizing virtual private databases. Finally, the process of database auditing will be explored, including auditing methods using various database management systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 2660

▲ Technology-Across-the-Curriculum Course.

CAP 2762 - Data Mining

3 Credit Hours
(Offered as needed)

This course offers exploration of data mining methodologies. Topics may include decision tables, decision trees, classification rules, association rules, clustering, statistical modeling, and linear models and will focus on data warehousing, data mining and data drilling.

Prerequisite(s): CGS 2541 or any programming language are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1600C - Networking Fundamentals

3 Credit Hours
(Fall, Spring)

This course introduces the student to the basics of Internetworking technology. This is also the first of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study networks and layers, networking devices, IP addressing, ARP and RARP, media and design, topology, structured cabling, electricity, and electronics and network management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1610C - Routing Protocols and Concepts

3 Credit Hours
(Fall, Spring)

Basic Router terminology and configurations are studied in this course. The student will study router components, router configuration, IOS, TCP/IP, IP addressing, and router protocols. This is one of the four courses designed to prepare a student to take the CISCO Certified Network Associate Exam (CCNA).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 1600C is required.

▲ Technology-Across-the-Curriculum Course.

CET 1675C - Introduction to IP Telephony

3 Credit Hours
(Fall)

This course explains how companies are using IP Telephony equipment and software to efficiently upgrade existing telephone systems. In addition, the course will give the student a fundamental understanding of the architecture of voice communication and how signaling, call quality and public switched telephone networks operate in a LAN/WAN networking environment. The use of IP Telephony products will be discussed and how software allows companies to cost-effectively upgrade and eventually replace existing (legacy) telephone systems with more cost-effective and easy-to-use telephone equipment.

Prerequisite(s): CET 1600C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1854C - Introduction to Wireless Technology

3 Credit Hours
(Fall)

This course teaches key wireless networking topics, including wireless technology and architecture network design, types of wireless networks, and applications. Special focus on technical matters, wireless communication products, wireless networking products, and wireless LANS products. It is recommended that all students have a least a basic knowledge of networking, including protocol, the OSI module, and TCIP/IP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2179C - PC Operating Systems A+

3 Credit Hours
(Fall)

This course is designed to help prepare the student to take the A+ Certification exams by making the student proficient in personal computer operating systems, including Windows. Major topics include disk and file management, system configurations, menu driven processing, graphical user interfaces, boot files, disk caching, virtual memory, device drivers, remote assistance, and security essentials and security practices.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2182C - PC Hardware A+

3 Credit Hours
(Spring)

This course is designed to prepare the student to take the A+ Certification exam, by teaching the student basic technical skills needed to understand the function and operation of the major elements of personal computer systems, and how to localize and correct common hardware and software problems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2615C - LAN Switching and Wireless

3 Credit Hours
(Spring)

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study LAN Switching, VLANs, OSPF, EIGRP, VTP, classless routing and Access Lists.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2620C - Accessing the WAN

3 Credit Hours
(Spring)

This course introduces the student to advanced router configurations and network design. This is also the last of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study WAN technology and design, PPP, ISDN, Frame Relay, and network management.

Prerequisite(s): CET 2615C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2660 - Network Security

3 Credit Hours
(Fall, Spring)

This course provides an in-depth study of network security concepts and techniques. Students examine theoretical concepts that make computer network security unique. This course provides a practical, hands-on approach when examining networking security techniques. Students examine different network strategies, explore the advancement of network implementation, and study timeless problem solving strategies. The course is also intended to assist with preparation for the CompTIA Security+ certification.

Prerequisite(s): Knowledge of networking basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2682C - Cisco Voice over IP (VoIP)

3 Credit Hours
(Spring)

Instruction includes, but is not limited to, Voice over Internet Protocol (VoIP) theory, Voice Gateway configuration in a IP Telephony (IPT) solution, IP Phone configuration, design of VoIP networks and troubleshooting IPT networks. Students will design and configure various VoIP networks using case studies and laboratory equipment.

Prerequisite(s): CET 1675C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2685C - Fundamentals of Network Security

3 Credit Hours
(Spring)

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CISCO Security Specialist certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2854C - Fundamentals of Wireless LANs

3 Credit Hours
(Offered as needed)

Develop, implement and troubleshoot wireless networks. This hands-on, skill-based course focuses on the design, planning and operation of wireless networks, with an overview of technologies, security, and design best practices. This course helps prepare the student for the CISCO Wireless Certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2880C - Digital Forensics Fundamentals

3 Credit Hours
(Fall and Spring)

This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. the course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2881C - Digital Forensics II

3 Credit Hours
(Spring)

Digital Forensics II builds upon the foundational knowledge learned in digital forensics fundamentals. Students will utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cell phones, smart phones, mp3 players, gps), and devices such as dvr's and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the accessdata certified examiner (ace) examination.

Prerequisite(s): CET 2880C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2891C - Wireless Network Security Certification

3 Credit Hours
(Offered as needed)

This course prepares students to secure wireless networks and protect valuable data from intruders. The following subjects are covered: intrusion tools and techniques, detection systems, WPA/WPA2/802.11i security, enterprise wireless gateways, encryption gateways, secure wireless bridging, and wireless VPN routers. This course prepares students for the compTIA wireless certification exam.

Prerequisite(s): CET 1854C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2892C - Advanced Network Security

3 Credit Hours
(Spring)

This course examines advanced network security topics including, but not limited to, advanced topics in integration of hardware firewalls, advanced topics in Intrusion Detection Systems (IDS), advanced topics in Internet Protocol-security (IPSec), and advanced topics in Virtual Private Networking (VPN) in network security design. Students will implement designs using equipment in a laboratory setting.

Prerequisite(s): CET 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2905 - Independent Study, Computer Engineering

1 Credit Hour
(Offered as needed)

This is a directed study course to provide computer engineering students with individual projects designed to meet specific needs in areas of computer engineering technology for which present course availability is limited.

Prerequisite(s): instructor or departmental chair approval. Knowledge of basic computer and keyboarding skills are strongly recommended.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2940 - Computer Engineering Internship

1 Credit Hour
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2941 - Computer Engineering Internship

2 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2942 - Computer Engineering Internship

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CGS 1030 - Computer Basics

3 Credit Hours
(Fall, Spring)

This is an introductory course for basic computer use, including the Internet. It addresses the use of computers for personal, business, and college purposes. It introduces the Windows operating system and Microsoft Office applications, including Word, Excel, and PowerPoint. Hands-on use of a personal computer is required.

Prerequisite(s): none

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CGS 1550 - Introduction to World Wide Web

3 Credit Hours
(Fall)

This course provides an introduction to the required hardware, software, procedures, uses and building web pages on the World Wide Web and the Internet.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1843 - Introduction to E-Commerce

3 Credit Hours
(Offered as needed)

This course is designed to provide students with an overview of the dynamics of electronic commerce and how it links information technology to business objectives. Course may not transfer to all State University System institutions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2544 - Advanced Database Concepts

3 Credit Hours
(Summer)

The aim of this course is to explore advanced database concepts including an advanced exploration of data modeling and the design and implementation of relational databases. This course will extend the students' understanding of advanced principles and techniques used in the design and implementation of modern database systems and explore database problems and potential solutions.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and

arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CIS 2352C - Ethical Hacking Fundamentals

3 Credit Hours
(Fall)

This course is designed to provide the student with an understanding of the techniques and methodologies of security penetration testing. This course provides hands-on instruction using the various tools and methods that security professionals use to analyze an information system in order to discover vulnerabilities and protect against information loss, cyber-terrorism, and corporate espionage. The student will be introduced to fundamental security testing concepts, gain practical knowledge of computer programming, learn how to properly document a security test, and explore the legal and ethical ramifications of penetration testing. Students will also learn how to apply the appropriate countermeasures in order to reduce the risk that an organization faces.

Prerequisite(s): CTS 1134 is required. Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

**3 Credit Hours
(Spring)**

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

**3 Credit Hours
(Summer)**

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

**3 Credit Hours
(Offered as needed)**

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

**3 Credit Hours
(Offered as needed)**

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2650 - Intro to Mobile Programming

2 Credit Hours
(Fall, Spring, Summer)

A broad survey of the development of mobile applications and the use of mobile devices. This course will help the student understand the development process for mobile devices, security measures that should be taken and will provide an overview of developing for both the Android and iOS mobile environments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2658 - Advanced Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the advanced IOS programming topics and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progressed into the advanced details of the UIKit, as well as several other frameworks essential for advanced development of the iPhone and iPad.

Prerequisite(s): COP 2654 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2662 - Advanced Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches advanced concepts and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1106 - Fundamentals of UNIX

3 Credit Hours
(Spring)

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in administration and certification.

Prerequisite(s): Knowledge of networking, basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1134 - Network Foundations

3 Credit Hours (Fall)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1156C - Desktop Support

3 Credit Hours (Fall)

This course introduces the helpdesk skills to troubleshoot hardware or software operation and application problems for end users on the desktop or client-side, based on the Windows operating system. It is designed to help prepare the student to take the two core exams (70-620 and 70-622) required for certification as an MCITP: Enterprise Support Technician students should have user-level competency with Windows and MS Office.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2104 - Introduction to Windows

3 Credit Hours (Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2143C - CompTIA Server+

3 Credit Hours (Spring)

This course provides advanced concepts in server hardware components and troubleshooting in a non-vendor-specific environment. Introduction to server installation, server storage concepts, administering services, server roles, virtualization, performance monitoring, security, data protection, and maintenance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2163C - Windows Client Operating System

**3 Credit Hours
(Spring)**

This course addresses the implementation and desktop support needs of the MS client software, including installation, configuration and management of hardware and file systems, user profiles, remote users, and monitoring of resources and performance. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2302C - Windows Active Directory

**3 Credit Hours
(Spring)**

This course focuses on a Windows server directory service environment, including forest and domain structure, DNS, site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user/group/computer account strategies. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): CTS 1156C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2314C - Network Defense and Countermeasures

**3 Credit Hours
(Fall)**

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure and implement secure networks. Security topics covered in this course include firewalls, Intrusion Detection Systems (IDS), Virtual Private Networks (VPN) and policy creation using the Windows Operating System (OS), Transmission Control Protocol/Internet Protocol (TCP/IP) packet and signature analysis. The student will get hands-on instruction installing the network defense mechanisms and countermeasure applications. Software will be used for collecting, monitoring and auditing various activities; students will analyze threats and intrusions.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2321 - UNIX Administration

**3 Credit Hours
(Offered as needed)**

This course is designed for network administrators in a UNIX operating environment. UNIX operating system concepts, architecture and administration will be explored using Linux. Includes shell programming, database managements, rapid application development, and programming tools such as PERL and C++.

Prerequisite(s): CTS 1134 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CTS 1106

▲ Technology-Across-the-Curriculum Course.

CTS 2346C - Windows Server Administrator

3 Credit Hours
(Offered as needed)

This course will provide students with the opportunity to develop the skills required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data. Recommended knowledge level: A+, Network +, Security + and Win client operating system. This course prepares the student for the MCITP exam.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2347C - Windows Network Infrastructure

3 Credit Hours
(As Needed)

This course addresses the configuration of Windows Server network infrastructure. Topics covered include: routing and remote access, network access protection, network authentication, IPv4 and IPv6 addressing, DHCP, DNS, WINS, DFS, IPSec, and security. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2390C - Installing and Configuring Windows Server

3 Credit Hours
(Fall)

This course is the first of a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total collectively cover implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skill set and tasks across the courses, this course primarily covers the initial implementation and configuration of those core services, such as Active Directory Domain Services, networking services, and initial Hyper-V configuration and is also preparation material for, Exam 70-410: Installing and Configuring Windows Server.

Prerequisite(s): CTS 2163C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2391C - Administering Windows Server

3 Credit Hours (Spring)

This course is the second in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skills and tasks across the courses, this course will primarily cover the administration tasks necessary to maintain a Windows Server infrastructure, such as user and group management, network access and data security and is also preparation material for, Exam 70-411: Administering Windows Server.

Prerequisite(s): CTS 2390C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2392C - Configuring Advanced Windows Server

3 Credit Hours (Summer)

This course is the third in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server Infrastructure in an existing enterprise environment. While there is some cross-over in skill sets and tasks across the three courses this course will primarily cover advanced configuration and services tasks necessary to deploy, manage and maintain a Windows Server infrastructure, such as identity management and identity federation, network load balancing, business continuity and disaster recovery, fault tolerance and rights management. This course is also preparation material, and maps directly to, Exam 70-412: Configuring Advanced Windows Server Services.

Prerequisite(s): CTS 2391C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2437 - Administering SQL Server Database

3 Credit Hours (Offered as needed)

This course provides students with the skills required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This is preparation for the MCP exam, an elective requirement for Windows MCSA/MCSE.

Prerequisite(s): CTS 1134 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2438 - Advanced SQL Server Database

3 Credit Hours
(Offered as needed)

This course provides students with advanced topics required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This course is designed to prepare the student for certification, an elective requirement for the Windows MCSA/MCSE.

Prerequisite(s): CTS 2437 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2440 - Introduction to Oracle

3 Credit Hours
(Offered as needed)

An introduction to Oracle and the design and creation of relational databases (using Oracle). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL) integrated into Stored Procedures, Functions, Packages and Triggers (PL/SQL Programming).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ISM 3220 - Network Technologies for Information Professionals

3 Credit Hours
(Fall)

This course is designed to give the student an understanding of the various networking technologies and their practical application in the management of a business. The course also covers the technical issues involved in designing and implementing an efficient network for voice, data, and information networks.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3232 - Software Essentials

3 Credit Hours
(Fall)

This course covers a broad range of software topics as they apply to software management and systems analysis and design. Topics include, but are not limited to programming, the systems development life cycle (SDLC), systems management, interface design and Internet technology.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3323 - Applications in Information Security

**3 Credit Hours
(Spring)**

This course helps develop the important security concepts relative to software application development and access control that provide the knowledge and skills necessary for the successful management of information security in an organization. Students will understand the environment where software is designed and developed as well as the critical role software plays in providing security to an organization's information systems. The course focuses on software development concepts that relate to security, and how access control methodologies fit into the entire enterprise architecture.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4011 - Information Systems Management

**3 Credit Hours
(Spring)**

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4480 - Electronic Commerce Systems and Strategies

**3 Credit Hours
(Offered as needed)**

This course is designed to familiarize the student with the management approach to defining and implementing e-commerce (EC) systems. The course addresses the digital economy, EC strategy and marketing, EC models (Business to Business, Business to Consumer, etc.) as well as EC architectures. The course will cover management and regulatory issues in EC such as internationalization, electronic payment methods, Internet fraud, mobile e-commerce, and current implementation technologies. Architectures and inter-dependence (i.e. integration) of systems will be covered.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4930 - Special Topics - Technology Management

**3 Credit Hours
(Offered as needed)**

This is an individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): Upper division standing and permission of instructor.

This course may be taken up to two times for credit.

Corrections

CJK 0340 - Corrections CCP Physical Fitness

30 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Criminal Justice

CCJ 1010 - Introduction to Criminology

3 Credit Hours
(Spring)

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; theory development in criminology, crime rates and trends, victimology and particular crime pattern areas.

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CCJ 1941 - Internship – Criminal Justice

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Permission of the instructor

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CCJ 2509 - Introduction to Gangs and Crime

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of street gangs, the social factors, and the general classifications necessary for the law enforcement, corrections, and public safety professional. This course explores the history, membership, activity, current trends, and influence of street gangs. Students will be challenged to define community-based solutions and strategies to combat the criminal activity associated with street gangs.

CCJ 2934 - Special Topics in Criminal Justice

2 Credit Hours
(Fall, Spring, Summer)

This course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

*This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CJC 2000 - Introduction to Corrections

3 Credit Hours
(Fall)

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; and problems of rehabilitation are covered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJE 1642C - Introduction to Crime Scene Technology

3 Credit Hours
(Fall, Spring, Summer)

This course explains and discusses the principals and theories in crime scene technology. The course covers specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence, gunshot residue, blood splatter and bodies.

CJE 1735 - Unmanned Vehicle Legal Requirements and Case Law

3 Credit Hours
(Fall)

This course examines the legal requirements and limits of drone operation by law enforcement. The course will also introduce the student to case studies, guidelines, laws, and protocols for law enforcement operations in contrast to use by private citizens. Additionally, this

case will examine and define expectations of privacy, based on case law as set forth by the United States Supreme Court. Case studies and Supreme Court decisions from the last century based on the fourth amendment and due process of law, will be studied for class projects. Each student will be required to submit a research paper on a specific related topic as assigned by the instructor.

CJE 2300 - Police Administration and Organization

3 Credit Hours
(Fall, Spring, Summer)

This course presents the principles of organization and administration in law enforcement including functions and activities, planning and research, public relations, personnel and training, inspection and control, records and communications and custody.

CJE 2330 - Ethics in Criminal Justice

3 Credit Hours
(Fall, Spring, Summer)

This course is a detailed exploration of ethical issues in Criminal justice with special emphasis on morality and the law, human behavior, and ethical decision making in law enforcement, corrections and the courts.

CJE 2400 - Police and Community Relations

3 Credit Hours
(Fall, Spring, Summer)

A study of the relationship of the Justice Administration agencies to the surrounding community. Examines the effect of social change and the consequences that it produces upon law enforcement, corrections, and the courts.

CJE 2600 - Criminal Investigations

3 Credit Hours
(Offered as needed)

Fundamentals of investigation; duties and responsibilities of the detective; interrogation techniques; search and techniques of protecting the crime scene; collection and preservation of evidence; modus operandi systems; scientific aids and other sources of information; court preparation and case follow-up.

CJE 2736 - Law Enforcement Applications of Unmanned Vehicles for 21st Century

3 Credit Hours
(Fall)

This course will introduce students to current law enforcement uses and abilities of unmanned vehicle systems, along with new and developing applications for exclusive use in law enforcement actions. Students will understand and explain the definitions of privacy expectations as related to law enforcement actions governed by the fourth amendment. Students will be required to participate in a course project, in which students will

develop, justify and define futuristic uses on drone technologies in the law enforcement field. In this team project, a presentation is required to defend the positions and uses of drone technologies as related in the project results.

CJJ 1002 - Juvenile Delinquency

3 Credit Hours
(Offered as needed)

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJK 0001 - Introduction to Law Enforcement

12 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to law enforcement, the process for becoming a certified law enforcement officer, and the requirements of the academy program. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0012 - Legal

63 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to the criminal justice system, the chain-of-command system in law enforcement, Constitutional Law, Florida Statutes, and the Police Code of Ethics. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0013 - Interactions in a Diverse Community

42 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enhance student awareness and understanding of human diversity issues and to teach students skills to enable them to effectively interact with people of diverse backgrounds. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0014 - Interviewing and Report Writing

54 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to help the student learn vital communication skills including interviewing, note-taking, statement taking, and report writing. It also helps the student to develop survival skills, stress management skills, and problem solving skills utilizing the SECURE model. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0020 - Law Enforcement CMS Vehicle Operations

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply vehicle operations knowledge, principles and techniques to the police driving environment. This course includes classroom instruction and practical application on the driving range. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency

situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0040 - CMS Firearms

81 Clock Hours (Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

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CJK 0051 - Defensive Tactics

81 Clock Hours (Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJK 0064 - Fundamentals of Patrol

36 Clock Hours (Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to understand Community Oriented Policing and how it is implemented as a problem solving model, and identify the SECURE problem solving model and its application in real life situations; understand officer safety issues,

identify and avoid fatal errors, identify and manage stress, maintain mental and physical fitness; respond to a call, approach a suspect, make an arrest, transport a prisoner and process the prisoner at a detention facility; and understand how to direct traffic, how to enforce traffic citations, identify how to respond to alarms and conduct a building search, and search inventory and impound vehicles. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0065 - Calls for Service

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to respond to calls for service, disturbances, people in distress and court orders. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0077 - Criminal Investigations

51 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond appropriately to a person or property crime victim, witness, and suspect; conduct a preliminary investigation on crimes against persons and crimes against property offenses; conduct a follow-up investigation to establish a suspect's identity and/or ascertain facts of the case; and, give testimony in different types of court proceedings. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0078 - Crime Scene to Courtroom

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond to a crime scene, protect and survey a crime scene, process a crime scene, dust for latent prints, and document a crime scene by sketching. This course includes classroom instruction and scenario-based

training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0084 - DUI Traffic Stops

33 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective DUI stops, including identifying a driver under the influence of alcohol and drugs, conducting field sobriety tests, and completing a DUI investigation. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0087 - Traffic Stops

30 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective traffic stops, including ethical consideration, safety considerations, citation and warning procedures, and dealing with abandoned vehicles. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0088 - Traffic Crash Investigations

33 Clock Hours

(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to traffic crash investigations, laws pertaining to traffic crashes and procedures for responding to a traffic crash. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0092 - Critical Incidents

45 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to identify the crowd control procedures to safely and effectively disperse or control a large group of people; understand local emergency response plans; respond to a bomb threat, assesses the scene, search and evacuate a building or suspected bomb sight, identify Weapons of Mass Destruction and properly respond to a WMD incident. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096A - Criminal Justice Physical Fitness I

31 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096B - Criminal Justice Physical Fitness II

32 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0300 - Introduction to Corrections

33 Clock Hours
(Offered as needed)

This course introduces students to the legal and ethical responsibilities of a correctional officer. Legal terms and definitions are explained. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0305 - CJSTC Communications

42 Clock Hours
(Offered as needed)

This course covers the entire report writing process. Topics include interview and interrogation, interpersonal communication, and practical exercises. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0310 - Officer Safety

12 Clock Hours
(Offered as needed)

Correctional officer safety procedures are learned. Students will learn to identify potential hazards and learn how to safely respond. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0315 - Facility and Equipment

12 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for inspecting a correctional facility and equipment. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0320 - Intake and Release

18 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for admitting and releasing inmates in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0325 - Supervising in a Correctional Facility

42 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for supervising inmates in a correctional facility. They also learn to detect crimes and rule violations in various correctional facility settings. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0330 - Supervising Special Populations

21 Clock Hours
(Offered as needed)

Students learn how to identify and supervise special population groups, such as threat groups, juveniles, elderly, and mentally ill inmates. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0335 - Responding to Incidents and Emergencies

18 Clock Hours
(Offered as needed)

Students learn how to identify and respond to situations involving escapes, riots, bomb threats, fires, and medical emergencies in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0422 - Dart-Firing Stun Gun

9 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare students in the proper use of the Dart Firing Stun in accordance with the Florida State Statutes, the United States Constitution, and case law. It includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2130 - Criminal Evidence and Procedure

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of criminal procedure particularly applied to search and seizure and evaluation of evidence.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

Dance

DAA 1100 - Fundamentals of Modern Dance

2 Credit Hours
(Fall, Spring,, Summer)

This beginning dance class serves as an introduction to the art of contemporary dance. It includes instruction and practice in basic modern dance techniques, improvisation, dance forms and brief historical overview.

This course may be taken up to four times for credit.

DAA 1101 - Modern Dance II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

This course includes a continued analysis of the modern dance at an intermediate level. Instruction and practice in specific contemporary dance techniques and performance qualities will be stressed.

This course may be taken up to four times for credit.

DAA 1104 - Modern I for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to affect an understanding of the art of the modern dance. It includes a brief history of the dance; instruction and practice in basic dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time. This course maybe taken 4 times for credit.

This course may be taken up to four times for credit.

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1201 - Ballet II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

Intermediate Ballet is designed to train the student in the tradition of the art of the classical ballet beyond the basics. Continued development of the body as an expressive instrument for ballet movement will be stressed as students reach the proficiency level necessary to perform the more complicated steps of an intermediate class.

This course may be taken up to four times for credit.

DAA 1204 - Ballet I for Majors

2 Credit Hours
(Fall, Spring, Summer)

A beginning dance course designed to serve as an introduction to the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1500 - Jazz I for Non-Majors

1 Credit Hour
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken four times for credit.

DAA 1500A - Beginning Jazz

1 Credit Hour
(Fall, Spring, Summer)

This course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken up to four times for credit.

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical theater auditions.

This course may be taken up to four times for credit.

DAA 1521 - Tap II

1 Credit Hour
(Fall, Spring)

The Tap II dance class includes a more in-depth history of tap dance, instruction and practice utilizing tap and exploring its various styles.

Prerequisite(s): DAA 1520.

This course may be taken up to four times for credit.

DAA 1580 - Musical Theater Dance I

1 Credit Hour
(Summer)

This beginning course covers the study of musical theater dance techniques and styles as related to a specific performance experience, usually Creative Dramatics. Students must participate in designated rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 1680 - Dance Workshop

1 Credit Hour
(Fall, Spring)

This course includes instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

This course may be taken up to four times for credit.

DAA 1681 - Dance Ensemble

1 Credit Hour
(Fall, Spring)

The student shall participate in the preparation and performance of original dance compositions to include Dance Line and Show Choir performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 1934C - Dance--Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a Collegiate High School student to pursue a course of study in applied dance. This course may be taken up to four (4) times for credit.

DAA 2105 - Modern II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to further the student's understanding of the art of the modern dance. It includes continued study in history of the dance; instruction and practice in intermediate level dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2205 - Ballet II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance course is designed to serve as an further training in the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2505 - Jazz II for Majors

2 Credit Hours
(Fall, Spring)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time. This course may be taken 4 times for credit.

Prerequisite(s): DAA 1504

DAA 2581 - Musical Theater Dance II

1 Credit Hour
(Summer)

The continued study of Musical Theater dance techniques and styles as related to a specific performance experience, usually Summer Ensemble Workshop. Students must participate in rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2610 - Dance Composition

2 Credit Hours
(Fall, Spring)

An introduction and practice in the application of compositional tools encourages the student to explore and compose dance. By studying the body's movement in time and space the student will improve technical skills, develop improvisation and choreographic skills and enhance overall dance performance. Previous dance experience is helpful.

This course may be taken up to four times for credit.

DAA 2682 - Dance Workshop II

1 Credit Hour
(Fall, Spring)

This course includes continued instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

Prerequisite(s): A demonstration of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography)

1 Credit Hour
(Fall, Spring)

This course includes the continuation of study and participation in all rehearsals of selected works of dance repertory and/or original choreography culminating in public performance.

This course may be taken up to four times for credit.

DAN 1750 - Dance Conditioning

1 Credit Hour
(Fall, Spring)

Dance Conditioning is an excellent course in which to begin your dance training. It is designed to improve fundamentals for the beginning/intermediate student through daily practice in floor work, yoga, and Pilates exercises. This movement class will get you ready to meet the challenges of other dance classes by toning, strengthening and preparing the body to move.

This course may be taken up to four times for credit.

DAN 2120 - Dance Appreciation

3 Credit Hours
(Offered as needed)

This course is a study of the development of dance as an art form, as entertainment, and how it relates to the history of cultures and societies, emphasizing the evolution of dance in the specific genres such as ballet, modern dance, jazz dance, and world dance forms. Designed to heighten student awareness of dance as an integral part of society and establish an appreciation of dance's impact on the making of art. This course will give the student a foundation level understanding of dance as an art form and its historical and cultural significance. The major periods of dance history, master choreographers, and their works will be explored through lecture, discussion and media presentation. DAN 2120 is not an activity course.

Dental Assisting

DEA 0020 - Pre-Clinical Procedures Theory

60 Clock Hours
(Offered as needed)

This course is designed to provide an introduction to the dental assisting profession to include orientation to four handed dentistry and general dental office procedures including, but not limited to basic principles of disease prevention, patient data collection and assessment, and instrumentation. Emphasis is on adhering to safety guidelines as specified by OSHA.

Corequisite(s): DEA 0020L.

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DEA 0020L - Pre-Clinical Practice Lab

90 Clock Hours
(Offered as needed)

This is a comprehensive chair side competency based course. The course provides the skills practice necessary for dental assisting students entering four handed dentistry practice including but not limited to infection control, taking

and recording vital signs, assisting with operative procedures, principles of preventive dentistry, instrument identification, and use and maintenance of equipment. Emphasis is on aseptic technique and clinical competency with procedures performed in a contemporary dental practice.

Corequisite(s): DEA 0020, DES 0103L.

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DEA 0130 - Oral Pathology

30 Clock Hours
(Offered as needed)

This course is a general study of the scientific and clinical concepts that include additional knowledge base necessary to the practice of dental assisting. Students will study the normal and abnormal conditions of the oral cavity such as dental caries prevention, the dental caries process and recognition of various common pathological conditions. Oral pathology, histology and embryology are included. Emphasis is on the interrelationship of the information presented with the clinical practice of dental assisting.

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DEA 0803L - Clinical Practice I

150 Clock Hours
(Offered as needed)

This competency based clinical course provides a real world setting in which to integrate the laboratory and clinical skills learned in the classroom. The student receives closely supervised hands on training in chair side dental assisting through rotations at community dental offices. Progress is evaluated using predetermined competency guidelines. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 90 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Corequisite(s): DEA 0020, DEA 0020L.

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DEA 0852L - Clinical Practice II

180 Clock Hours
(Offered as needed)

This course is a continuation of Clinical Practice I. It provides a real world setting for students to receive additional training in the clinical skills learned in class. Students are assigned to various offices in the community including but not limited to general dentists, oral surgeons, orthodontists, periodontists, and endodontists. Performance evaluations are utilized to measure competency and provide feedback from the local dental offices to the instructor regarding the students' competency level. Skills are strengthened in Seminar Lab. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 150 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Prerequisite(s): DEA 0803L, DES 0400

Corequisite(s): DES 0830, DES 0830L.

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DEA 0936 - Dental Assisting Seminar

60 Clock Hours (Offered as needed)

This course is designed to provide a review of materials commonly covered on the Dental Assisting National Board (DANB) Exam. Topics include but are not limited to infection control, general chair side procedures, and radiographic technique. The seminar will provide a mock board examination, and opportunities for review, problem solving, and strengthening skills. The course also serves as an opportunity for feedback from students' Clinical Practice.

Prerequisite(s): DEA 0852L, DEA 0803L, DES 0205, DES 0205L

Corequisite(s): DEA 0803L, DES 0206L.

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DES 0103 - Dental Materials

60 Clock Hours (Offered as needed)

This course is a comprehensive study of the theory of manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. The competency based lab that accompanies this course includes exercises to illustrate application and use of selected materials. Students will study various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, as well as acrylic plastics. Students will become familiar with various pieces of dental laboratory equipment and their uses.

Corequisite(s): DES 0103L, DEA 0020L.

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approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0103L - Dental Materials Lab

90 Clock Hours
(Offered as needed)

This course is a comprehensive study of the manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. Emphasis is on practical application as it relates to the role of the dental assistant in the contemporary dental practice. It is a competency based lab that accompanies the theory course and includes exercises to illustrate application and uses of selected materials. Students practice the use of various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, and acrylic plastics.

Corequisite(s): DES 0103, DEA 0020L.

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DES 0205 - Dental Radiology I

60 Clock Hours
(Offered as needed)

This course is designed to introduce the theory, application and principles of radiographic exposure and processing techniques used in dentistry. Students will receive instruction including but not limited to historical data, radiation safety, exposure, processing, mounting and error prevention. Image interpretation of radiographic anatomical structures will be included.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205L.

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DES 0205L - Dental Radiology Laboratory I

60 Clock Hours
(Offered as needed)

This laboratory course assists students in radiographic performance techniques using DXTR manikins to achieve competency prior to exposure of various patients with varied dentitions. Students practice exposing, mounting, radiographic interpretation, safe darkroom procedures, identification of landmarks and distinguishing radiographic

pathology from normal landmarks. Clinical radiographic skills necessary to produce diagnostic quality radiographs including bitewings, periapical radiographs, and panoramic x-rays will be covered. Emphasis is on patient and operator safety guidelines and producing diagnostic quality radiographs.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205.

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DES 0206 - Dental Radiology Theory II

30 Clock Hours (Summer)

Students will learn to identify the normal landmarks of intraoral and extra oral images. They will also be able to demonstrate the ability to interpret x-rays and recognize and identify abnormalities on dental images. Students will learn how to discuss their finding with a dentist, without overstepping the boundaries of diagnosing, from a dental image. Students will be able to explain the differences in cancellous and cortical bone. Students will be able to use an x-ray to identify different restoration types and irregularities in those restorations. Students will be able to point and identify trauma, pulpal lesions and periapical lesions on an x-ray.

Prerequisite(s): DES 0400, DES 0205, DES 0205L, DEA0020, DEA0020L

Corequisite(s): DES 0206L

DES 0206L - Dental Radiology Laboratory II

30 Clock Hours (Summer)

This laboratory course assists students in additional radiographic performance techniques to include surveys on patients with varied dentitions. Students practice advanced radiographic exposure techniques, interpretation, additional darkroom procedures, identification of landmarks and distinguishing various radiographic pathology. Clinical radiographic skills necessary to produce diagnostic quality x-rays including bitewing, radiographs, periapical radiographs, and panoramic surveys on actual patients are implemented. Emphasis is placed on patient and operator safety guideline and producing diagnostic quality radiographs. This course will involve live patients, scheduling appointments and presenting prescriptions for x-rays from local dentist.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L, DES 0205L

Corequisite(s): DES0206

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DES 0324 - Interpersonal Communications Skills

30 Clock Hours
(Offered as needed)

This course is designed to implement interpersonal and effective communication skills in the practice of dentistry. It includes team building strategies, oral and written communications skills with the correct use of terminology commonly used in dentistry. Professionalism in verbal and nonverbal communications is emphasized. Students will be introduced to the legal and ethical scope of responsibilities for dental assistants and interpersonal relations in the dental office. Providing oral health instructions and post operative instructions for patients will be introduced. Scenario-based role playing is used to augment student learning of course content.

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DES 0400 - Dental Anatomy

90 Clock Hours
(Offered as needed)

This course provides a detailed study of the orofacial and related structures of the head and neck including, but not limited to the eruption, identification and function of the human dentition, study of bony, circulatory, muscular and nervous systems of the head, neck and surrounding structures associated with the oral cavity. A brief introduction to oral histology and embryology will be included.

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DES 0501 - Dental Practice Management

60 Clock Hours
(Offered as needed)

This course includes theory and content relating to practical administrative duties performed in the dental office. Lectures and role playing activities are related to the responsibilities of the dental assistant. Topics include but are not limited to appointment scheduling, billing, collections, record keeping, clerical and dental supply inventory. Students are introduced to the use of dental practice software with hands on computer experience. Legal responsibilities, interpersonal relations, and interview skills are included.

Prerequisite(s): DES 0205, DES 0205L

Corequisite(s): DEA 0936.

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college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0602 - Pharmacology and Dental Office Emergencies

30 Clock Hours
(Offered as needed)

This course is designed to familiarize the dental assisting student with the basic concepts and considerations regarding pharmacology and pharmaceuticals used in dentistry. Topics presented include nitrous oxide monitoring, emergency procedures and protocol. Lectures will include recognition of emergency conditions in the dental office, not limited to syncope, anaphylaxis, and cardiovascular incidents. Emphasis is placed on the role of the dental assistant in the prevention and management of dental office emergencies.

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DES 0830 - Expanded Function Theory

30 Clock Hours
(Offered as needed)

This course introduces the dental assisting student to the dental specialty practices and more advanced clinical skills. It also provides the theory of dental specialty practice administration as it relates to the role of the dental assistant including ethical and legal ramifications. Lectures relate topics including but not limited to dental specialty procedures, instruments used in the specialty practices and duties delegated to dental assistants according to the rules and regulations of the Florida Dental Practice Act. Role playing and problem solving activities using case studies relate to duties delegated to dental assistants.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830L.

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DES 0830L - Expanded Functions Lab

60 Clock Hours
(Offered as needed)

This laboratory course accompanies the clinical practice lecture course DES 0830 and provides opportunity for students to practice application of the duties delegated to dental assistants according to the Florida Dental Practice Act. Students become more proficient in more advanced skills. Competencies containing information and behavioral objectives allow students to master each skill before advancing to the next.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830.

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DES 0844 - Infection Control for Dental Assistants

30 Clock Hours
(Offered as needed)

This course is a general study in biomedical sciences of preventive dentistry to familiarize the dental assisting student with basic principles of microbiology, basic body structures, and their functions and effects as manifested in the oral cavity. The course also covers the effects of nutrition and the role of microorganisms in dental health and blood borne pathogens.

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Domestic Security

DSC 1002 - Domestic and International Terrorism

3 Credit Hours
(Offered as needed)

This course is designed to assist students in recognizing and understanding the elements and objectives of terrorism and 4th Generation Warfare and how they affect public safety planning and response operations.

DSC 1004 - Introduction to NRF and NIMS

3 Credit Hours
(Offered as needed)

Designed to inform emergency responders and planners of the key elements in the National Response Framework (NRF) and the National Incident Management System (NIMS) and their relationship to planning and response operations. The curriculum includes classroom exercises.

DSC 1222 - Psychological Management of Disaster Victims

3 Credit Hours
(Offered as needed)

This course introduces students to a general overview of terrorism and the potential psychological effect of terrorist events on victims.

DSC 1250 - Unmanned Vehicles Fundamentals for Disaster Management

3 Credit Hours
(Spring)

This course examines the protocol and interagency support concepts for the utilization of unmanned vehicles in preparation and response of catastrophic events. Students will be introduced to the development of an emergency response plan which will include unmanned vehicle concepts such as observation, communications, safety, training, and also integration between Public safety agencies.

DSC 1552 - Critical Infrastructure Protection

3 Credit Hours
(Offered as needed)

This course introduces participants to the Critical Infrastructure Protection (CIP) process to secure the effective protection of the people, physical entities, and cyber systems that are critical. The CIP course will guide leaders in the systematic protection of critical infrastructures. More basically, the course will introduce decision sequence that assists leaders and future leaders in ultimately determining exactly what really needs protection as well as when. The course will introduce a time-efficient and resource-restrained practice that ensures the protection of only those infrastructures upon which survivability, continuity of operations, and mission success depend.

DSC 1562 - Homeland Security Threat Strategy

3 Credit Hours
(Offered as needed)

This course addresses problems of terrorism from a criminal justice perspective. It is designed to provide students with an understanding of the major issues associated with responding to terrorism in a democratic society. The course focuses on the threat of terrorism to the United States and will review specific strategies to deter terrorist threats to the U.S. The course will assess the relative effectiveness of anti-terrorist activities.

DSC 1631 - Planning Considerations for Terror Prevention

3 Credit Hours
(Offered as needed)

This course introduces participants to various aspects of planning for potential terrorist activity. The student will be introduced to basic principles of emergency management, communications, security threats, and the effects these operations may have on personnel. The student will learn techniques for evaluating their own jurisdiction's vulnerability against terrorist attacks. Students will gain knowledge of the roles and responsibilities of local agencies during terrorism responses. The course introduces participants to various aspects of emergency management of terrorist activity.

DSC 1751 - Homeland Security Policy and Law

3 Credit Hours
(Offered as needed)

This course introduces participants to the major debates about balancing democratic freedoms with security from the Patriot Act to Supreme Court decisions on detention powers. The course provides insight into legal strategies

necessary to confront ongoing national security threats. The course examines laws designed to preserve both our security and our democratic way of life.

DSC 2055 - Issues in Disaster Response

1 Credit Hour
(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

DSC 2056 - Disaster Response Operations

3 Credit Hours
(Offered as needed)

This course examines the response protocol, logistics, responsibilities, interagency support, and concepts of front end planning involved in preparation for a catastrophic event. Students will be introduced to the development of an emergency response plan that will include concepts such as lookout, awareness, communications, escape, safety (laces), training, and various agency relationships.

DSC 2900 - Development of Unmanned Vehicle Applications

3 Credit Hours
(Fall, Spring, Summer)

Students complete a project that demonstrates excellence by applying the knowledge of unmanned drones gained from the public safety core courses. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Drafting and Design

EGN 1111C - Engineering Graphics

3 Credit Hours
(Fall, Spring, Summer)

Covers the use of instruments, lettering practice; geometric construction; multiview projection and conventions, auxiliary views, section views, axonometric and oblique projections, rotation, patterns and development, and methods of reproduction.

Prerequisite(s): ETD 1102 or equivalent: prerequisite only applies to Architectural Drafting and Design students.

EGN 1130C - Descriptive Geometry

3 Credit Hours
(Fall, Spring, Summer)

Covers basic principles of orthographic projection, auxiliary views and rotation as they apply to points, lines and

planes in space; addition of coplanar and non-coplanar vectors; intersections and developments; and selected abstract, exonometric and oblique projection, and practical problems.

Prerequisite(s): EGN 1111C or equivalent.

ETD 1102 - Introduction to Technical Drawing

3 Credit Hours
(Spring, Summer, Fall)

A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction.

ETD 1112 - Mechanical Drafting I

4 Credit Hours
(Offered as needed)

The second of a sequence of courses in drafting which includes basic use of instruments, freehand lettering, geometric construction, orthographic projection, sections and conventional revolutions, dimensioning, inking, mechanical lettering, methods of reproduction, and developing computer-aided drafting skills.

Prerequisite(s): ETD 1102 and ETD 1320C or equivalent

ETD 1217 - Fundamentals of Dimensioning and Tolerancing

4 Credit Hours
(Fall, Spring)

A course designed to help students develop the basic fundamentals of dimensioning and tolerancing. Topics include: dimensioning systems such as; metric, decimal, fractional-inch, foot and inch, tolerancing methods, limits and tolerances, tolerancing accumulation, dimensioning practices, and standards fits.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 1340C - AutoCAD II

3 Credit Hours
(Fall, Spring, Summer)

The second course in a series designed to develop skill and proficiency in the use of AutoCAD software to include: additional drawing commands, editing commands, modify commands, advanced display and inquiry commands, advanced dimensioning and annotation, advanced layering, block, attributes and X-Ref, paper space, UCS, data

exchange and output files.

Prerequisite(s): ETD 1320C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1355C - AutoCAD 3-D Modeling I

3 Credit Hours
(Fall, Spring)

A basic course in mechanical design using basic computer geometry techniques. Topics will include: orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques.

Prerequisite(s): ETD 1340C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1801C - Technical Illustration

3 Credit Hours
(Fall)

The purpose of this course is to help students develop the skills, knowledge, and attitudes necessary to be job entry-level qualified as technical illustrators.

Prerequisite(s): ETD 1112 or EGN 1130C, and ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETD 2218 - Geometric Dimensioning and Tolerancing

4 Credit Hours
(Fall, Summer)

An introductory course in geometric dimensioning and tolerancing using the geometric method nationally accepted according to ASMEY 14.5M. Topics covered include: definition and terms, symbols, datum referencing, locational tolerancing, form tolerancing, profile tolerancing, orientation and runout tolerancing, and math for positional tolerancing.

Prerequisite(s): ETD 1217 or equivalent.

ETD 2350C - AutoCAD III

3 Credit Hours
(Fall, Spring, Summer)

An advanced course designed to help students develop proficiency in the area of computer aided drafting and systems drafting. Topics covered include: transfer drawings, digitized drawings, explanatory drawings, multiview projections, exploded assemblies, pictorial drawings, auxiliary views, sections, details, geometric dimensioning and tolerancing, and CADD concepts.

Prerequisite(s): ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2358C - Inventor II

3 Credit Hours
(Summer)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using Inventor Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2357C.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2368C - SolidWorks II

3 Credit Hours
(Spring)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using SolidWorks Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2364C or higher or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 2377C - 3D Studio Max I

3 Credit Hours
(Offered as needed)

Course is designed to use 3D Studio in rendering, and animation as a dynamic visualization tool for AutoCAD design images. Upon completion of this course, the user will be able to navigate through the modules of the program, model simple projects, set up scenes for rendering and animation, assign materials to objects, and define simple motion paths, input and output techniques.

Prerequisite(s): ETD 1355C or equivalent.

ETD 2731 - Mechanical Drafting II

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary views, related mathematics, precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 1112 or equivalent.

ETD 2735 - Mechanical Drafting III

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include: isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary views, related mathematics, and precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 2218 and ETD 2731 or equivalent.

ETD 2802C - Technical Illustration II

3 Credit Hours
(Spring)

The purpose of this course is to help students develop advanced skills, knowledge, and attitudes necessary as technical illustrators, to include oblique, and axiometric projections, perspective and exploded pictorial drawings, and related techniques.

Prerequisite(s): ETD 1340C or equivalent.

ETD 2905 - Independent Study – Drafting

1 Credit Hour
(Fall, Spring, Summer)

Practical treatment of special geometry, graphics, and design with emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing.

Prerequisite(s): EGN 1111C and ETD 1112 or permission of instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

* This course may be taken up to four times for credit.

ETG 1941 - Internship

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Early Childhood Education

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours
(Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours
(Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours
(Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1401 - The Family In Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours (Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours (Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours (Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours (Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEC 3213 - Teaching the Language Arts In Early Childhood Education

4 Credit Hours (Offered as needed)

The focus of this course will be on the development of language and literacy in children ages birth through age four.

Emphasis will be placed on understanding the process of emergent literacy including vocabulary and language, phonological awareness, print knowledge and comprehension; and on designing a developmentally appropriate language arts program in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3227 - Art, Music, and Movement

3 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of the creative developmental process in the life of children from birth through four years old. Emphasis will be placed on the teacher's role in developing opportunities and materials for young children to express themselves creatively through music, drama, dance and two- and three-dimensional art and on providing varied opportunities for young children to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies

3 Credit Hours
(Offered as needed)

This course is designed to prepare students to teach social studies in the early childhood classroom. Emphasis is on implementing the project approach to investigate components of social studies to include: individual development and identity; people, places, and environments, technology and our world; and civic ideals and practices. The student will increase and apply knowledge and skills in the Florida Early Learning and Developmental Standards relevant to this content area.

EEC 3511 - Curriculum for Infants and Toddlers

3 Credit Hours
(Offered as needed)

The focus of this course will be on the design, implementation and evaluation of programming and curriculum that promotes growth and development of young children birth to three years old and aligns with the early learning and developmental standards. Study of typical and atypical development will be included. Emphasis will be on working effectively with families of infants and toddlers.

EEC 3524 - Professionalism/Program Development

4 Credit Hours
(Offered as needed)

Focus of this course will be on management and leadership in early childhood education programs. Topics will include mentoring adults, professional development, staff assessment, program evaluation, and child advocacy. Career options in the field of early childhood education will be explored. This course will require observing and participating in a program or agency related to early childhood education.

EEC 4404 - Families and Diversity

3 Credit Hours
(Offered as needed)

This course will focus on building positive relationships with families through communication and involvement. Focus will include developing an awareness of diversity and multicultural considerations in working with families of young children. The course will explore the role of the family and the influence of the community on the development of young children in a diverse society; and will prepare the student to work effectively with families and communities.

EEC 4421 - Teaching Math and Science in Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of how concepts, skills and attitudes in early childhood mathematics and science are developed in young children ages birth through age four. Math topics will include number sense and operations, patterns, geometry, and measurement. Science topics will include scientific inquiry, physical science, life science and earth science. Emphasis will be on the alignment of the Early Learning and Developmental Standards with a developmentally appropriate approach to teaching math and science in the early childhood classroom. This course will require observing and participating in an early childhood classroom.

EEC 4613 - Systematic Observation and Assessment

3 Credit Hours
(Offered as needed)

The focus of this course will be on understanding the purpose of child assessment, implementing developmentally appropriate practices in formal and informal child assessment, and using assessment results to support learning, to identify special needs, to evaluate programs, and to respond to program accountability requirements. A field experience is required to practice various methods of assessment in an early childhood setting.

EEC 4714 - Facilitating Social Development In The Classroom

3 Credit Hours
(Spring, as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

Prerequisite(s): Upper Division Standing

EEC 4940 - Internship

9 Credit Hours
(Fall, Spring)

Supervised teaching in an assigned Early Childhood Education setting. Student teaching assignments will be made by the Department of Teacher Education Office. This course requires a minimum grade of "C". Current background check (fingerprinting) is required for this course.

Prerequisite(s): Upper Division standing with permission of Department Chair

EEX 3604 - Classroom Management in Early Childhood Education

3 Credit Hours

(Offered as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

EEX 4201 - Young Children with Special Needs

3 Credit Hours

(Offered as needed)

The focus of this course will be on working with young children birth through age four in an inclusive early childhood classroom. Emphasis will be on identifying typical and atypical development, creating an inclusive early childhood learning environment, understanding special education law, developing an awareness of resources for inclusive practice to meet the needs of young children and their families.

Earth Science

ESC 1000 - Earth Science

3 Credit Hours ♦

(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000L - Earth Science Lab

1 Credit Hour

(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

Economics

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Education

EDE 4223 - Integrating Art, Music, and Physical Education

3 Credit Hours (Summer)

This integrative course provides students with critical understanding of art, music, and physical education. Emphasis is placed on the effective integrative lesson planning and modeling techniques to art, music, and physical education in elementary schools. This course requires a minimum grade of "C".

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4226C - Integrated Language Arts, Social Science and Literature

3 Credit Hours (Fall, Spring)

This course is designed to prepare candidates to teach language arts and social science in elementary classrooms. Teacher candidates will develop units of study that integrate literature, language arts, with social science content. Emphasis is on constructivist principles and methodology. Teacher candidates will plan and deliver standards-based language arts and social science lessons designed to meet the needs of diverse learners including English language learners (ELLs) and students with exceptionalities. This course requires 18 hours of field experience in a K-6 classroom setting. Current background check (fingerprinting) acceptable to the district in which the field experience will take place is required for this course. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4930C - Professional Elementary Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace. Includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours
(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

EDF 1005A - Introduction to the Teaching Profession - A

3 Credit Hours
(Fall, Spring, Summer)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. This course is intended for those students that are not planning to enter a degree program leading to teacher certification. An additional fingerprinting cost may be associated with this course. If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

EDF 1006 - Field Experience in Education

1 Credit Hour
(Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department chair.

EDF 1006A - Field Experience in Education

2 Credit Hours (Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department director.

EDF 2085 - Introduction to Diversity for Educators

3 Credit Hours (Fall, Spring)

This course will provide the student with the opportunity to explore personal values and attitudes toward cultural diversity. Designed for the prospective educator, the theoretical component will examine the issues of teaching in culturally diverse classrooms. An eighteen-hour field experience and examination of educational materials will enhance the student's understanding of multiculturalism. An additional fingerprinting cost may be associated with this course. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EDF 3214 - Human Development and Learning

3 Credit Hours (Summer)

This course is designed to cover the principles of learning and student development with applications to learning/teaching situations. Identification and analysis of students' academic, physical, cognitive, emotional, motivational, and social development is to be emphasized. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3430 - Measurement, Evaluation, and Assessment in Education

3 Credit Hours (Fall, Spring)

This course studies the basic principles and methods of measurement, evaluation, and methods of test construction. Students will interpret standardized test scores, construct teacher-made tests and other classroom assessments, and evaluate portfolio and performance assessment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3910A - Projects in Teacher Education

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing an artifact required in the B.S.E. program. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

EDF 3910P - Projects in Teacher Education – Field Placement

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing field experience in the B.S.E. program. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 3343 - Instructional Strategies

3 Credit Hours
(Fall, Spring)

This course provides an overview of instructional models and strategies. Emphasis is placed on principles of state standards, instructional methods, and lesson planning and instruction. Students will develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student populations. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C

EDG 3410 - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring) Online Only

Practicing teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. This course is restricted to practicing teachers.

Prerequisite(s): upper division standing.

EDG 3410C - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring)

Pre-service teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 4940 - Internship

9 Credit Hours
(Offered as needed)

Supervised teaching in a public or private school. Student teaching assignments will be made by the department of teacher education field placement coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing with permission of department chair.

EDE 4223, EDE 4226C, EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, LAE 4343C, MAE 3350C, RED 3309C, RED 3511C, RED 4312, RED 4519C, SCE 3350C, TSL 3081C, TSL 4140C

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3070 - Methods of Inclusion and Collaboration

3 Credit Hours
(Summer)

This course examines the basic identification techniques and strategies used to promote academic and social integration and interaction of "mainstreamed" exceptional students. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EME 2040 - Introduction to Technology for Educators

3 Credit Hours
(Fall, Spring Summer)

This course will develop competencies necessary to integrate technology into classroom instruction. Students will survey a variety of instructional technology materials, software, and systems, as well as learn to use these in the classroom environment. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

EME 3410C - Integrating Technology in the Classroom

3 Credit Hours
(Fall, Spring)

In this course students will learn how to design a technology-rich classroom while contemplating the changing role of the teacher as a mentor/guide and student as a self-directed learner. Students will explore models of technology integration, classroom management, and administrative tasks that can be performed more efficiently using technology and learn strategies to select software and deal with legal and ethical issues when planning for technology integration. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3343 and EDG 3410C

EVR 3949 - Extended Internship, Environmental Science

4 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum Grade of "B" in any college-level science course and permission of instructor.

LAE 4343C - Writing Across the Curriculum

3 Credit Hours
(Offered as needed)

This course prepares pre-service teachers by developing an understanding of the foundations of writing through the use of writers workshops and instructional strategies necessary to provide adequate instruction to emergent, novice, and transitional writers. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 3350C - Principles and Methods for Teaching Mathematics K-8

3 Credit Hours
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in grades K-8. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4312C - How Children Learn Math

3 Credit Hours
(Offered as needed)

This course is designed to develop the skills and concepts necessary to deliver the mathematics curriculum effectively in the classroom. The content strongly reflects the curriculum emphases of the National Council of Teacher of Mathematics, and topics are presented using a process-oriented approach. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4930C - Professional Math Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in mathematics, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4940C - Teaching Methods in Middle Grades Math Field Experience

1 Credit Hour
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4945 - Internship - Middle Grades Math

9 Credit Hours
(Offered as needed)

Supervised teaching of Middle Grades Math in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430 , EDG 3410C, EDG 3343, EEX 3070, EME 3410C, MAC 2312, MAD 3107, MAE 3350C , MAE 4312C, MAE 4940C , MHF 4404, MTG 2206, RED 3324C, RED 3335C, STA 2023, and TSL 3081C

RED 3309C - Early and Emergent Literacy K-2

3 Credit Hours
(Fall, Spring)

This course is designed to increase the understanding of early literacy development and the conditions which promote total literacy from birth through lower elementary grades. Language theory and current research are used to shape informed practices regarding literacy development. Connections are made among all aspects of literacy learning: reading, writing, listening, speaking and attitude development. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3324C - Teaching in the Middle Grades Curriculum

3 Credit Hours
(Fall, Spring)

This course presents theory and methodology for teaching reading at the middle school level with emphasis on strategies for vocabulary and comprehension, evaluating student progress in reading, and integrating reading and study skills into content area instruction across the middle school curriculum. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3335C - Teaching Reading in the Content Areas

3 Credit Hours
(Fall, Spring)

This course addresses strategies, materials, and skills for teaching reading in content areas. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3324C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3511 - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/ literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a minimum grade of "C" or better and is restricted to practicing teachers.

Prerequisite(s): RED 3309C and upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

RED 3511C - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4312 - Integration of Assessment into Classroom Reading

3 Credit Hours
(Summer)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on integrating assessments into the curriculum to strengthen instructional strategies and student success. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): RED 3309C, RED 3511C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4519C - Diagnostic and Instructional Interventions in Reading

3 Credit Hours
(Fall, Spring)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4854C - Reading Field Experience

2 Credit Hours
(Fall, Spring)

This course provides application of knowledge of reading development to reading instruction. Emphasis is placed on increased reading proficiency for struggling students, including students with disabilities and students from diverse populations. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C, RED 4312, RED 4519C, upper division standing with permission of department chair

SCE 3350C - Principles and Methods for Teaching Science K-8

3 Credit Hours
(Fall, Spring)

This course provides techniques, methods and materials of instruction for teaching science in grades K-8. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4930C - Professional Science Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in science, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4940C - Teaching Methods in Middle Grades Science Field Experience

1 Credit Hour
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching science in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4945 - Internship - Middle Grades Science

9 Credit Hours
(Offered as needed)

Supervised teaching of Middle Grades Science in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430, EDG 3343, EDG 3410C, EME 3410C, EEX 3070, ESC 1000, EVR 3949, ISC 4145, MET 1010C, RED 3324C, RED 3335C, SCE 3350C, SCE 4940C, TSL 3081C, and CHM 1020 or PHY 1020

TSL 3081 - TESOL Issues and Practices

3 Credit Hours
(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C." Neither field experience or a background check/fingerprinting are required for current teachers enrolled in this course.

Prerequisite(s): Upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

TSL 3081C - TESOL Issues and Practice

3 Credit Hours
(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other

Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 4140C - ESOL Methods, Curriculum and Assessment

3 Credit Hours (Fall, Spring)

This course is designed to build on the candidate's knowledge of applied linguistics and cross cultural communication. Candidates will extend their understanding of the role of language and culture in the classroom. This course will prepare candidates for effective planning, instruction, and assessment of ELLs in the classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): TSL 3081C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

Electronics

EET 1015C - Electricity/Electronics I, DC Circuits

3 Credit Hours (Fall, Spring)

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

3 Credit Hours (Fall, Spring)

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws, Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

EET 1141C - Solid State Electronics

3 Credit Hours
(Fall, Spring)

This is the third course required for Electronics Aide certificate. This course introduces the student to the concept, components, and uses of solid state electronics. Topics include semiconductor devices; thyristors and diodes, transistors, amplifiers, power supplies, oscillators, and optoelectronics. The use of capacitors and inductors in solid state electronics will be also covered. The design, set-up, and troubleshooting solid state circuits and devices using various power supplies and function generators will be dispersed throughout the class.

Prerequisite(s): EET 1025C

EET 1180C - Industrial Electronic Troubleshooting

3 Credit Hours
(Fall, Spring)

This course covers troubleshooting procedures for a variety of electronic equipment and circuits common to industrial applications. The student will develop and implement trouble shooting protocols and plans, equipment monitoring plans, a preventive maintenance plan, and select appropriate test and monitoring equipment. Safety in an industrial setting will be stressed and reinforced through a series of lab exercises throughout the course.

Prerequisite(s): EET 1084C

EET 2155C - Linear Integrated Circuits

3 Credit Hours
(Fall, Spring)

This course covers the fundamentals and applications of linear integrated circuits and operational amplifiers. The course covers includes inverting and non-inverting amplifiers, comparators, signal generators, differential and instrumentation amplifiers, operational amplifier specifications, active filters, modulator-demodulator integrated circuits, timers, analog to digital converters (ADC), and digital to analog converters (DAC) and measurement and analysis of linear circuits and devices.

Prerequisite(s): EET 1015C, EET 1025C

ETS 1511C - Motors and Controls

3 Credit Hours
(Fall, Spring)

This course explores the theory and application of AC and DC motors, types of single-phase motors, three-phase power, three-phase motors, remote and local control, forward and reversing motor starters, and various motor control circuits. Wiring and troubleshooting exercises of electric three-phase motor control circuits are emphasized in a wide range of applications.

Prerequisite(s): EET 1084C

Environmental Sciences

ENV 4610 - Sustainable Logistics

3 Credit Hours
(Spring)

This course introduces students to current and future trends in logistics technology, policy and sustainability. Topics include, source sustainability, environmental impacts of existing and emerging technologies, and local environmental conditions and the global climate.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1940 - Internship, Environmental Science

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum grade of "B" in any college level science course and permission of instructor.

Engineering Technology

EEL 2603C - Robotics-Mechanics and Controls

3 Credit Hours
(Fall)

This course introduces the student to robotics. Instructional topics will include robot classifications, applications, Input/Output (I/O) and sensor interfacing.

Prerequisite(s): ETS 1542C

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

ETI 4205 - Applied Logistics

3 Credit Hours
(Offered as Needed)

Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

ETM 1315C - Hydraulics & Pneumatics Fundamentals

3 Credit Hours
(Spring)

This course introduces the student to basic hydraulic and pneumatic fundamentals. Instructional topics will include components, fluid pressure and flow and basic circuit design and application.

ETS 1542C - Introduction to Programmable Logic Controllers

3 Credit Hours
(Fall)

This is an introductory course in Programmable Logic Controllers (PLCs.) The student will learn basic concepts with a focus on programming and practical applications.

Prerequisite(s): EET 1084C

English

CRW 2001 - Creative Writing I

3 Credit Hours
(Fall, Spring, Summer)

Instruction and practice in writing fiction and poetry. Students will submit a poetry portfolio and complete at least one short story.

CRW 2002 - Creative Writing II

3 Credit Hours
(Fall, Spring, Summer)

Advanced work in poetry and prose modes with emphasis on revision. Students will submit a poetry portfolio and write and revise at least one complete short story. Students will prepare creative work for publisher market.

CRW 2100 - Introduction to Fiction Writing

3 Credit Hours
(Offered as needed)

Practice in writing fiction using various points-of-view. Students will submit completed short stories for

workshop. Upon agreement with the instructor, students may elect to develop novel chapters with synopsis. Students will prepare creative work for publisher market.

CRW 2201 - Introduction to Creative Nonfiction

3 Credit Hours
(Offered as needed)

This writing course examines the narrative possibilities of creative nonfiction. We will explore structure, technique, and authorial presence in representative works of established sub-genres, including literary journalism, travel and/or food writing, memoir, the lyric essay and collage.

CRW 2300 - Introduction to Poetry Writing

3 Credit Hours
(Offered as needed)

Practice in writing poetic forms employing poetic techniques. Students will workshop completed poems and submit a portfolio of revised poetry. Students will prepare creative work for publisher market.

ENC 0056 - Developmental Writing Module

2 College Prep Credits
(Offered as Needed)

This course is designed to develop written language skills for students whose entry placement scores do not meet requirements for degree credit courses (not applicable for degree completion). Conducted in a lab setting, this course is self-paced course, designed to allow students to focus on their individual grammar, usage, and writing needs to prepare for successful entry into college credit English courses (not applicable for degree completion). This course may be taken in place of ENC 0027 if a student has a placement score of 98-102 on the PERT. Students may exit Developmental Writing Module by passing the coursework and by obtaining a passing score on the Departmental Exit Exam.

Prerequisite(s): Students must score 98-102 on the PERT or on an elective basis score 103 or higher on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1101L - English Composition I Lab

1 Credit Hour
(Fall, Spring, Summer)

An instructor directed writing workshop designed to improve student's opportunity for success in ENC1101. Students will strengthen writing and grammar skills necessary to master the topics and concepts covered in ENC1101. Areas of focus include, but are not limited to, the following: expository and argumentative writing; appropriate diction; conventions of Standard American English grammar, punctuation, sentence structure; conventions of MLA.

Prerequisite(s): ENC0025 and REA0017 or equivalent with a "C" or better grade, or a score of 100-116 on the PERT, or on an elective basis with a score of 103 or higher on the PERT.

Corequisite(s): ENC 1101

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

LIN 1670 - Writing and Grammar

3 Credit Hours
(Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

English as a Second Language (ESOL)

XEL 01__ - ESOL I

This course provides small group and individualized instruction in both oral and written English communication skills at the beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 02__ - ESOL II

This course provides small group and individualized instruction in both oral and written English communication skills at the low beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 03__ - ESOL III

This course provides small group and individualized instruction in both oral and written English communication skills at the high beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 04__ - ESOL IV

This course provides small group and individualized instruction in both oral and written English communication skills at the low intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 05__ - ESOL V

This course provides small group and individualized instruction in both oral and written English communication skills at the high intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 06__ - ESOL VI

This course provides small group and individualized instruction in both oral and written English communication skills at the advanced level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

Entrepreneurship

ENT 2931 - Selected Studies in Entrepreneurship

**1 Credit Hour
(Spring)**

In this course, topics of current interest are presented in group instruction.

Fire Science

FFP 0010 - Firefighting I

**206 Clock Hours
(Offered as needed)**

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0077 - First Responder for Public Safety Personnel

45 Clock Hours
(Fall, Spring, Summer)

This course trains public safety members who are the first to arrive at an emergency in providing efficient and accurate pre-hospital care. Students assess patients for wounds to determine if trauma, shock, burns or closed airways are a problem and how to address those issues by dressing wounds, stabilizing the person or administering oxygen. They immobilize patients and address common emergency medical issues with basic treatments. This course includes hands-on, practical experience and is necessary to be eligible for first responder certification.

This course is a co-requisite course for students entering the Firefighting Certificate program who do not have certification for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 1140 - First Responder for Public Safety Personnel

3 Credit Hours
(Offered as needed)

This course introduces the student to the skills and techniques used for first response to medical emergencies. Classroom instruction includes a variety of medical related topics encountered by public safety personnel. Practical exercises and scenarios are included to enhance classroom instruction and skill development.

FFP 1301 - Fire Service Hydraulics

3 Credit Hours
(Offered as needed)

Introduction to the study and characteristics of hydrostatics and hydrodynamics in the fire service; to include basic hydraulic measuring units, facts, theories, and formulas for problem solving. The course covers the relationship between flow and pressure and mathematical hydraulic formulas.

FFP 1505 - Fire Prevention Practices

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1540 - Private Fire Protection Systems

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1691 - Fundamentals of Firefighting & Unmanned Vehicles

3 Credit Hours
(Summer)

Course introduces the fundamentals of unmanned vehicle applications for firefighting with prioritization of manpower and equipment utilization. Fire officers explore the use of unmanned vehicles for fire ground commanders for tactical operations for all levels of fire. Emphasis for fire investigators on utilization of unmanned vehicles in the investigation process. Course introduces determination of fire cause and origin with collection of evidence by unmanned vehicles during fire scene investigation. Participants will explore the use unmanned vehicles for planning, responding, and evaluating HAZMAT incidents.

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1800 - Disaster Education for Individuals and the Community

3 Credit Hours
(Offered as needed)

This course provides a study of the design, development, and delivery of public disaster safety education and programs including: methods of identification of disaster safety programs, the selection of target programs and strategies of affect reduction, methods of designing and implementing information and educational programs, and methods of evaluating a program's impact. Studies include theoretical and practical skills training in individual, group, and mass media communications, instructional skills, planning priorities, and evaluation techniques.

FFP 1801 - Introduction to Emergency Management Administration

3 Credit Hours
(Offered as needed)

This course will discuss emergency management practices and how they relate to natural and man-made disasters. It is designed to help the student develop an understanding of overall emergency management principles, practices, and standards in the local, national, and international environments.

FFP 1810 - Firefighting Tactics and Strategy I

3 Credit Hours
(Fall, Spring, Summer)

This course is a study of the principles utilized on the fire ground for maximum manpower and equipment utilization; fire ground administration starting with a small fire on up through major conflagrations. Emphasis will be on developing thinking skills in relation to crises.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1826 - Incident Management

3 Credit Hours
(Offered as needed)

This course contrasts the major forms of Incident Management/Incident Command Systems. It illuminates these differences and offers a fresh perspective on the concepts on which these systems are founded in order to make them more accessible and user-friendly. It bridges the gap between their theoretical and academic foundations and their real-world applications, and makes them more applicable to the professional's daily needs.

FFP 1881 - Emergency Management Leadership

3 Credit Hours
(Offered as needed)

This course provides the student with the knowledge and skills necessary for effective interpersonal relationships, including conflict management and the use of power and influence as they apply to emergency administration and leadership. It addresses the budget process and related administrative duties of an emergency management program manager.

FFP 1890 - Emergency Management Principles for Tourism and Hospitality Industry

3 Credit Hours
(Offered as needed)

This course analyzes emergency management functions and responsibilities within the tourism and hospitality industry. Particular emphasis is placed in the areas of administration, organization, communications, and human relations. Students will learn how historical mistakes can influence human response to disaster situations, and some of the current legal and human challenges posed when dealing with disasters.

FFP 2120 - Fire Service Building Construction

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2692 - Unmanned Vehicles Applications and Search & Rescue

3 Credit Hours
(Fall)

This course examines the utilization of unmanned vehicles by public safety in various search and rescue operations. Students will be introduced to the utilization of unmanned vehicles during searches for suspects eluding capture. Course will examine the response protocol and interagency support utilizing unmanned vehicles in urban, water, and various terrain search and rescue operations. Students will be introduced to the operations of unmanned vehicles for silver and amber alerts.

FFP 2720 - Company Officer

3 Credit Hours
(Fall, Spring, Summer)

Designed to assist fire officers in solving the varied problems and situations they will be required to manage effectively in today's ever changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation, and small group dynamics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2780 - Fire Department Administration

3 Credit Hours
(Fall, Spring, Summer)

The course is designed to present the principles of management theory, and its application in the fire service. The course is intended for officers whose area of responsibility encompasses long and short range planning, budgeting and administration.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2820 - Emergency Preparedness

3 Credit Hours
(Offered as needed)

This course teaches all aspects of emergency preparedness and planning related to natural and man-made disasters, and basic principles of emergency management. Planning concepts and the planning process will be discussed.

FFP 2823 - Technical Applications in Emergency Management

3 Credit Hours
(Offered as needed)

This course explores issues and problems associated with the use of technology in emergency management. It examines strategies to overcome these issues and problems. Some of the subjects treated are use of the Internet, spatial analysis applications in vulnerability analysis, decision support systems, and emerging technologies.

FFP 2834 - Societal Issues in Disaster Management

3 Credit Hours
(Offered as needed)

This course examines human response to disaster events, including political and economic factors influencing vulnerability. It examines how individuals and institutions make decisions at all levels of disaster response, it is an introduction to current research pertaining to the sociological aspects of disaster, and it will provide increased awareness of the potential and difficulties in using social science research as a basis for modifying public policy.

FFP 2841 - Contingency Planning for the Private Sector

3 Credit Hours
(Offered as needed)

This course is designed to assist students in developing effective public sector plans by using the National Incident Management System and the Incident Command System templates. The curriculum includes case studies and development procedures for private sector logistics management and employee support planning.

French

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

FRE 1121 - French II

4 Credit Hours
(Spring)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): FRE 1120 or an equivalent course with a grade of "C" or better.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

General Education Diploma (GED)

XGE 14__ - GED 2014 Comprehensive

The GED 2014 Comprehensive Preparation Program provides skills and knowledge building for each of the four content-area assessments of the Official GED 2014 Tests: Reasoning through Language Arts, Mathematics Reasoning, Science, and Social Studies. The purpose of the program is to prepare students to obtain the knowledge and skills necessary to pass the Official GED Tests and be awarded a State of Florida High School Diploma. An

additional performance level will certify that the adult student is career and college ready. This program strives to motivate students not only to obtain a GED diploma, but to continue their education to earn a postsecondary degree, certificate, or industry certification.

*Course number varies with number of instructional contact hours.

Geography

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

Geology

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

GLY 2601C - Introduction to Paleontology

4 Credit Hours
(Fall or Spring)

This course is a survey of prehistoric life. Topics include fossilization, systematics, evolution, ecology, extinction, and the geological history of life. Laboratory work covers the anatomy, classification, and ecology of major phyla of both extinct and extant organisms, including monerans, protists, plant, macroinvertebrates, and vertebrate animals. The course involves local and regional fossil collecting trips.

Graphic Design

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2140C - Multimedia I

4 Credit Hours
(Fall, Spring, Summer)

An advanced course covering the development of multimedia projects incorporating a variety of digital media elements. Students will learn an industry standard digital video editing application and the aesthetic and technical considerations involved in content acquisition. Access to a miniDV camcorder suggested.

Prerequisite(s): ART 2602C, GRA 1151C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2141C - Multimedia II

4 Credit Hours
(Offered as needed)

An advanced course covering principles of design and information architecture surrounding interactive multimedia

presentations. Students will learn an industry standard interactive DVD media authoring software application. Students will produce a finished interactive DVD.

Prerequisite(s): GRA 2140C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours

(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 2191C - Graphic Design II

3 Credit Hours

(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2900 - Independent Study – Graphic Art

1 Credit Hour

(Offered as needed)

This course covers the practical treatment of Graphics/Printing Technology. Emphasis is on individual work projects.

Prerequisite(s): GRA 1151C or PGY 1801C

GRA 2905 - Independent Study – Graphic Design

1 Credit Hour

(Offered as needed)

The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

Prerequisite(s): GRA 1151C or PGY 1801C

▲ Technology-Across-the-Curriculum Course.

GRA 2950C - Advanced Graphic Projects

4 Credit Hours
(Offered as needed)

An advanced Graphic Design course addressing common Graphic Design problems. Students will explore advanced software application functionality and creative, aesthetic, and portfolio development. Access to a high quality digital camera required.

Prerequisite(s): ART 2602C, ART 2603C, GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

Health Education

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours
(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1432 - Pathopharmacology

3 Credit Hours
(Fall)

Introduction to the nature, cause, and treatment of disease entities and the body's defense mechanisms. Commonly used drugs will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1442 - Pharmacology for HIM Professionals

2 Credit Hours
(Offered as needed)

Pharmacology for HIM Professionals provides an overview of the pronunciation, spelling, actions and side effects of the most commonly prescribed medications. The course will examine pharmacological terms, abbreviations, and symbols used by healthcare providers to write prescriptions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2253 - CPT Coding - Part 1

3 Credit Hours
(Spring)

Instruction and practice in basic CPT coding conventions, principles of classifying physician services using current procedural terminology (CPT-4), APC, and auditing procedures. Ethical standards of practice will be analyzed.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

(Previously listed as HIM1253)

HIM 2272 - Healthcare Reimbursement

3 Credit Hours
(Summer)

Emphasis on billing regulations for the State of Florida. Course content includes LMRPS, Workers' Compensation laws, Florida Medicare, and claims for automobile accident injuries.

Prerequisite(s): HIM 2253 and HIM 2724 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2291 - CPT Coding Part 2

3 Credit Hours
(Spring)

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, inpatient and outpatient prospective payment systems, encoding software and RBRVs.

Prerequisite(s): HIM 2253 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2724 - ICD Coding Part 1

3 Credit Hours
(Fall)

This course provides a foundation using ICD-10-CM/PCS coding conventions, rules, methodology and sequencing, data sets, documentation requirements, and coding resources.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

HIM 2729 - ICD Coding Part 2

3 Credit Hours
(Fall)

This course focuses on assigning appropriate ICD, DRG, and Level II (HCPCS) codes to a wide range of original source medical documents. This course increases the quality of code selection by applying the decision process in problem solving using well-defined medical record review methods and guidelines. Ethical practices will be discussed.

Prerequisite(s): HIM 2724 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2815C - Professional Practice Experience

3 Credit Hours
(Summer)

Working in a simulated, online environment, students will endeavor to code and bill using nationally recognized, American Health Information Management Association (AHIMA) simulation software.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

HIM 2931C - Special Topics in Health Information Technology

1 Credit Hour
(Summer)

This course is a review of skills and work processes to support classification and coding to become nationally certified in-field. Effective test-taking strategies for certification exams and employability skills will be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

HSA 3110 - Health Care Organization and Management

3 Credit Hours (Spring, Summer)

This course focuses on the structure and management of health care organizations, and the fundamental issues facing the U.S. health care system. Key topics include health status, the organization of health services, manpower, public health, financing, facilities, utilization, quality, regulation, and national health policy.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3111 - Introduction to Health Care Management

3 Credit Hours (Fall, Spring)

This course studies the administration, organization and delivery of health care in the United States. Topics to be examined include health care leadership, management, strategy, performance improvement, information technology, insurance, financial and human resources management, as well as ethical and legal concepts.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3113 - Contemporary Issues in Health Care

3 Credit Hours (Spring)

This course is designed to introduce students to a range of issues related to health and health care in the United States. Course content will give students the opportunity to explore differing perspectives as they develop a deeper understanding of the issues and enhance their research and communication skills. The course will enable students to analyze and evaluate evidence regarding controversial issues. Students will develop and practice skills in formulating and writing well-informed, well-articulated arguments and reflections.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4191 - Health Information Systems

3 Credit Hours (Fall)

This course focuses on the theories, concepts and principles of health information systems and development of critical thinking skills for use in practice/working in health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying evidence-based knowledge, will analyze the design and implementation of health care information systems.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4922 - Capstone: Health Care Management

3 Credit Hours (Spring)

This course integrates the information, skills, and abilities provided throughout the Health Administration Program in a capstone project. Students complete a project that demonstrates excellence by applying the knowledge gained from the core courses and materials studied throughout the program. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

History

AMH 2010 - American History I

3 Credit Hours ¶ (Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω (Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

WOH 1012 - World Civilization: Early Humans through Global Expansion

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

A study of world history from 4000 BC to 1650 AD as it relates to the development of western civilization. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communication/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

A study of history from 1650 AD to the present as it relates to the development of the modern world. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Hospitality Management

FOS 2201 - Food Service Sanitation Management

3 Credit Hours

(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

3 Credit Hours
(Spring)

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

3 Credit Hours
(Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours
(Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

**3 Credit Hours
(Summer)**

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 1250 - Dining Room Management

**3 Credit Hours
(Spring)**

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2100 - Food Plans and Menu Preparation

**3 Credit Hours
(Spring)**

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2240L - Classical Cuisine

**3 Credit Hours
(Fall)**

Students prepare and learn the skills and management theories involved in classical dishes. Concentration is on the basics of classical cuisine, such as stocks, soups, and sauces. Attention is given to the management tasks of portion control, costing and presentation. Special emphasis is given to classics such as emulsion sauces, thickening agents, and sauces derived from the Mother sauces. Student must successfully pass written and practical examination covering a variety of techniques and procedures.

Prerequisite(s): FSS 1221L

FSS 2242L - International and Regional Cuisine

**3 Credit Hours
(Spring)**

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

FSS 2500 - Food and Beverage Cost Control

3 Credit Hours (Fall)

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2941 - Culinary Internship

2 Credit hours (Fall, Spring, Summer)

This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): FOS 2201, FSS 1202L, FSS 1221L

FSS 2942 - Culinary Internship

3 Credit Hours (Spring)

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work.

May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L , HFT 1000 , and FSS 1221L with a grade of "D" or better.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours (Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours (Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours (Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours (Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours (Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2600 - Hospitality Law

3 Credit Hours
(Offered as needed)

Nature and function of our legal system as it applies to the operation of an INN. Innkeeper-guest relationship, contracts, torts, civil rights and insurable risks are emphasized.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2940 - Hospitality Internship

1 Credit Hour
(Offered Fall, Spring, Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2941 - Hospitality Internship

2 Credit Hours
(Offered Fall, Spring, Summer)

This course consists of on-the-job experience supplied by the hotel-motel-resort- restaurant industries. Job placement will be dependent upon the availability of participating hospitality institutions. The course consists of 60 hours per semester of on-the-job instruction accompanied by a seminar class.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2942 - Hospitality Internship

3 Credit Hours

(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

Humanities

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ♦ ¶

(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1905A - Independent Study – Arts and Humanities

1 Credit Hour

(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): approval from department chair, a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

HUM 2250 - Humanities – A Contemporary Perspective

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2700 - Humanities – Foreign Study

3 Credit Hours ♦ ¶
(Offered as needed)

A variable humanities content course designed to allow students first-hand learning experiences outside the United States. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2920 - Humanities Colloquium

1 Credit Hour
(Fall, Spring, Summer)

Humanities Colloquium is a lab designed to introduce students to critical visual and listening skills to become an intelligent arts consumer. Initial lecture sessions are devoted to discussions of the elements of analysis of art works, music pieces, theater performances, and dance presentations. Students will be required to attend selected NWFSC

Visual and Performance Arts presentations and to write a short critical review of each. Topics may vary.

Prerequisite(s): placement test may be required.

HUM 2930 - Humanities – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

Legal Assisting

PLA 1003 - Introduction to Paralegal Studies

3 Credit Hours
(Fall)

This course is designed to give students a broad understanding of the nature of the paralegal profession and the elements contained within the profession, as well as its responsibility.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1114 - Legal Research and Writing

3 Credit Hours
(Spring)

This course is designed to provide the student with necessary skills and knowledge required in legal research/case

analysis and legal writing.

Prerequisite(s): PLA 1003 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1600 - Wills, Trusts, and Probate

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of estate planning, wills, and probate administration.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1800 - Introduction to Family Law

3 Credit Hours
(Spring)

An introduction to practices as they relate to family law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2273 - Tort Law

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of tort law with objectives centered on personal injury torts.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2949 - Internship - Paralegal

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the

student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): completion of a minimum of 12 credit hours in the appropriate discipline, including PLA 1003 and permission of the instructor is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

*This college credit course is not intended for transfer and may not be applied toward the AA degree.

Library Science

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

Literature

AML 2010 - American Literature: 1492 - 1865

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from the pre-Colonial period to the Civil War. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AML 2020 - American Literature: 1865 - Present

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from Civil War to present. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: AML 2010 is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2100 - World Literature: Antiquity through the Renaissance

3 Credit Hours ♦ ¶
(Offered Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from antiquity through the Renaissance, that reflect cultural and intellectual heritage. May be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet the Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2120 - World Literature: Renaissance through the Present

3 Credit Hours ♦ ¶
(Offered, Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from the Renaissance to the present, that reflect cultural and intellectual heritage. May be used as a humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: LIT 2100 is not a prerequisite for this course)

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦
(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

Machining/CNC

ETI 2419C - Advanced Concepts of CNC Machines and CNC Machining Practices

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with advanced concepts in CNC machines and CNC machining to include: theory, operation, setup, safety, and practices.

Prerequisite(s): PMT 2261C or PMT 2262C

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on

applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

Management

HUS 4950 - Capstone: Human Resources Management

3 Credit Hours
(Spring)

This capstone will build upon and integrate the primary human resource management skills introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge in the field of human resources.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours
(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3120 - Leadership and Group Dynamics

3 Credit Hours
(Spring)

An applied leadership course with a focus on case studies, projects and group interaction; includes theoretical background on group dynamics, small group behavior and motivation, power, types of groups, verbal and non-verbal communication skills and team-building. Emphasis will be placed on sociological and psychological dimensions of inter-group relations, including analysis and problem-solving through simulations, cases and similar activities which reflect a general business perspective, as well as leadership and group dynamics across a variety of business units/functions.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and MAN 3052, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3310 - Issues in Human Resource Management

3 Credit Hours
(Fall, Spring)

Introduces the full range of human resource management functional areas, including recruiting and hiring staff, performance evaluations, employment regulations, discipline and termination, downsizing, compensation and benefits, job analysis, the organized labor setting, equity/diversity issues, and policy design. Approach will focus on current issues and applications.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3320 - Employee Staffing and Benefits

3 Credit Hours
(Fall)

An intermediate level course in employment staffing issues focusing on staffing patterns, organizational structures, job analysis and design, staffing efficiencies, employee assistance programs, staff projection models, and employee services.

Prerequisite(s): upper division standing and MAN 3310 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3350 - Training and Development

3 Credit Hours
(Fall, Summer)

Covers various staff training and development models, effective workshop techniques, designing and implementing company-wide training and development programs. Assessment of training needs, training and development as a benefit and setting development goals; students will design and conduct at least one workshop/training session for fellow students.

Prerequisite(s): upper division standing and GEB 3213 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3505 - Production Operations and Logistics Management

3 Credit Hours
(Spring)

This course examines the integration of production operations and logistics management and how this enables an organization to compete successfully in business. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, and inventory management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3574 - Acquisition Management

3 Credit Hours
(Spring)

Students will be exposed to the fundamentals of government acquisitions. This course provides conceptual material on government acquisitions, to include program planning, execution, and control. Students will be introduced to the elements of program risk and learn risk management techniques. The systems engineering process will be emphasized to include work breakdown structures, cost -- benefit analysis, and scheduling.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours

(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3610 - Global Logistics Management

3 Credit Hours

(Offered as Needed)

Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the multinational enterprise and management problems associated with operations in diverse systems are analyzed.

Prerequisite(s): Upper division standing and MAN 3593 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3786 - Sustainable Enterprise Planning

3 Credit Hours

(Offered as Needed)

This course introduces students to assessment tools, design and construction considerations, and operating planning requirements for sustainable enterprises. Students will learn about the ecological and economic benefits of sustainability/green practices. Additionally, they will learn how product, process, and service decisions affect sustainable enterprise concepts. Today's enterprises focus on social and environmental challenges, marketing, supply chain decisions, recycling, reusing, reconditioning, and other product and service decisions in order to realize a competitive advantage. This course will focus on best practices, case studies, evolving trends, and experimental efforts regarding sustainable/green systems.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3903 - Operations Research

**3 Credit Hours
(Fall)**

Operations Research is a science of modeling and optimization. It allows to model real-world problems by using mathematics, statistics and computers. It provides us the tools and theories to solve real-world problems by finding the optimal solutions to models subject to constraints of time, labor, resource, materials and business rules. With Operations Research, people make intelligent decisions to develop and manage their processes and businesses.

Prerequisite(s): Upper division standing is required. STA 2023, MAC 1140, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4162 - Customer Relations for Managers

**3 Credit Hours
(Spring)**

This course focuses on relationship building for all customers of an organization. The impact of culture and diversity on business relationships, successful negotiation strategies, and promotion of the organization through media relations are discussed. Emphasis is placed on the manager's role in improving customer relationships by creating a customer-focused, organizational climate.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4401 - Labor Relations

**3 Credit Hours
(Offered as needed)**

This course explores the impact of employee organizations on labor relations, current problems, conflicts and trends and includes the development of managerial approaches to achieve labor management cooperation.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4520 - Quality Management

**3 Credit Hours
(Spring)**

This course examines the significance of quality as a primary competitive strategy for tomorrow's successful business organizations. The impact of quality focus on increasing customer satisfaction is changing the manner in which business organizations functions. Students will recognize that quality focused business organizations are evolving into very different environments in which to work and manage. This quality imperative is relevant for both industrial and service sector organizations. Students will be exposed to the critical issues of total quality management through reading, case studies, class discussion, field trips and outside speakers. The students are expected to gain insight and understanding regarding the meaning of quality, how organizations develop a quality focus, and the continuous nature of quality management. This course is appropriate for students who have an interest in: (1) managing the total quality program in a business organization, and/or (2) working for a business organization which already made a strong commitment to total quality management.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4555 - Quality Certification: ISO 9000

3 Credit Hours
(Fall)

A comprehensive study of internationally uniform quality standards (ISO 9000 and the steps to individual and organizational certification; includes management responsibility, quality system documentation, contract review, design control, process control, inspection and testing, corrective actions and other certification topics.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4570 - Purchasing and Materials Management

3 Credit Hours
(Fall)

The management of purchasing and the materials for production processes. Cost/price analysis, computer systems, forecasting, materials requirements, negotiations, and contracting are included.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4594 - Reverse Logistics

3 Credit Hours
(Offered as Needed)

In this course forward-moving logistics is compared to reverse-moving logistics. Both goods and information are discussed. Topics include federal and state regulations, waste management, recycled materials, technology, financial controls, stakeholders, and performance measurement.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4595 - Logistics Technology

3 Credit Hours
(Offered as Needed)

This course provides an overview of the use of technology (bar codes, gps, and radio frequency identification tags) in logistics to control recalls, returns, recycling, and waste management. Management functions, data synchronization, and interrelationships between different technologies to capture data regarding products moving in a logistics system are also discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4930 - Capstone: Acquisition Management

3 Credit Hours
(Spring)

In this seminar, students will have the opportunity to participate in hands-on projects applying the techniques in MAN 3574 - Acquisition Management. Emphasis will be on government acquisition management. Students will create a work-breakdown structure, a project schedule, and perform a cost-benefit analysis of alternatives. Earned value management will be introduced as a method of program control. Students will also identify potential risk areas and suggest mitigation plans.

Prerequisite(s): Senior standing and completion of program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours
(Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4932 - Contract Negotiations Seminar

3 Credit Hours
(Offered as needed)

This seminar will refine the negotiation skills of the student through the use of readings, class discussions, case analyses, and practical exercises. Students will be introduced to goals, objectives, and strategies, as well as using appropriate tactics and methods to achieve them. The course will also help students understand the role of communication, power, and personality in the negotiation process and facilitate them assessing their personal abilities and traits as they relate to negotiation. While the course will focus on negotiation of defense-related contracts, the principles covered will apply to the entire range of interpersonal relationships.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4933 - Best-Value Source Selection Seminar

3 Credit Hours
(Offered as needed)

Focus is on the best-value source selection process. Students will walk through the acquisition cycle. Topics will include acquisition strategy, pre-solicitation activity, preparation for evaluation, initial proposal evaluation, discussions or negotiations, final proposal revision and recommendations and decisions.

Prerequisite(s): upper division standing and MAN 3574 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4934 - Logistics Management Seminar

3 Credit Hours
(Offered as needed)

A special topics course conducted in group or individual format; focus is on the terms, concepts and processes associated with logistics and distribution in the contemporary business environment.

Prerequisite(s): upper division standing and MAN 3583 or MAN 3574. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4940 - Capstone: Supervision

3 Credit Hours
(Spring)

This capstone course will build upon and integrate the primary management skills and concepts introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge. This course will also cover basic entrepreneurial principles, which will be integrated throughout the student-led projects.

Prerequisite(s): Senior standing and completion of program core and emphasis business courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1346 - Supervision II

3 Credit Hours
(Offered as needed)

The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socioeconomic climate and other information. Included are orientation, training, labor unions, safety, health and other related topics.

Prerequisite(s): MNA 1345 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2141 - Leadership Techniques

3 Credit Hours
(Offered as needed)

This interdisciplinary course addresses leadership in a group setting and focuses on leadership development through discussion, readings, group and individual projects and other applied activities.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Marketing

MAR 2011 - Introduction to Marketing

3 Credit Hours
(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Mathematics

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling,

optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

MAD 3107 - Applied Discrete Mathematics

3 Credit Hours
(Fall)

This course builds on the foundation established in Introduction to Discrete Mathematics with further exploration in logic, mathematical reasoning, and mathematical proof writing. Topics include logic, set theory, boolean algebra, combinatorics, and graph theory with applications.

Prerequisite(s): Completion of MAC 2312 with a grade of "C" or better or concurrent enrollment in MAC 2312.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAS 2103 - Linear Algebra

3 Credit Hours
(Offered as needed)

This is an introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. This course includes the study of matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors. Exercises using MATLAB will be required. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better, or equivalent.

MAT 0018 - Developmental Mathematics I

3 College Prep Credits
(Offered as needed)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). It is designed to reinforce the knowledge of operations and applications of fractions, decimals, percents, and signed numbers. An introduction to algebra will also be covered. Students must pass this class with a "C" or better to move on to MAT 0028.

Prerequisite(s): A score of 50-95 on the PERT.

Corequisite(s): SLS 1101.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0022 - Developmental Mathematics Combined

6 Credit Hours
(Fall, Spring, Summer)

A course designed to satisfy the requirements of both MAT0018 and MAT0028 in one semester and prepare students for MAT1033A. Topics to be studied include computations with decimals, percents, integers, operations with rational and polynomial expressions, linear equations and inequalities in one variable, factoring, and basic linear graphing. This course will teach the student to understand and communicate concepts of algebra in the language of mathematics, both orally and written. Due to the nature of this course, calculators are not permitted. A grade of "C" or better is required for successful completion of this course. College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

Prerequisite(s): score of 50-95 on the PERT

Prereq/Corequisites: SLS 1101

MAT 0028 - Developmental Mathematics II

4 College Prep Credits
(Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). This course emphasizes concepts, techniques, and applications of the following topics: operations with real numbers, linear equations and inequalities in one variable, rational expressions, properties of exponents, polynomials, radical expressions, and graphs of lines.

Prerequisite(s): Grade of "C" or better in MAT 0018 or score of 96-113 on the PERT or on an elective basis a score of 114 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0056 - Developmental Mathematics Module

2 College Prep Credits
(Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit. This course emphasizes concepts, techniques, and applications of the following topics: operations with real numbers, linear equations and inequalities in one variable, rational expressions; properties of exponents, polynomials, radical expressions, and graphs of lines. Student may exit Developmental Mathematics Module by passing the coursework and by obtaining a passing score on the Exit Exam.

Prerequisite(s): score of 105-109 on the PERT or elective basis score 110 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0157 - Modularized Developmental Mathematics II

4 College Prep Credits (Fall, Spring)

This course is designed to help students develop computational & algebra skills needed for success in college level mathematics. This course uses a modular format in a lecture/lab setting. Students will take a diagnostic test in class to identify skills that have not been mastered and to determine placement into the appropriate modules. Each student will have an individualized learning plan such that he or she works only on skills not yet mastered. Possible topics in the learning plan include operations on signed numbers, solving linear equations and inequalities in one variable, graphing linear equations, operations with exponents and polynomial expressions, factoring polynomials and solving quadratic equations, introduction to rational expressions, and operations with square roots. Students will use computerized instruction as well as guided instruction by the instructor. Successful completion of this course requires mastery of the material in each module and a passing score of the department final exam. Course cannot be used toward AA or AS degree.

Prerequisite(s): MAT 0018 with a grade of "C" or better or a score of 96-113 on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 1033A - Intermediate Algebra

4 Credit Hours (Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MAT 1033L - Intermediate Algebra Laboratory

1 Credit Hour (Fall, Spring, Summer)

A hands-on lab designed to improve students' chance for success in the MAT1033A Intermediate Algebra course. Students will work to strengthen skills required to master the topics covered in Intermediate Algebra. The topics include, but are not limited to, factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions

Prerequisite(s): MAT 0028 or equivalent with a grade of "C" or better, or a score of 110-122 on the PERT, or on an elective basis with a score of 123 or higher on the PERT.

Corequisite(s): MAT 1033A

*Students scoring 110-113 on the PERT may enroll in MAT 1033A if they also enroll in MAT 1033L. Students should see an academic advisor.

MAT 2905 - Applied Teaching Techniques for Mathematics

4 Credit Hours
(Summer)

The goals of this course are: refinement or acquisition of mathematics skills and connections between mathematics topics needed for successfully tutoring in an academic setting; acquisition of general methods of tutoring as well as specific tutoring techniques needed for specific courses. Teacher-tutor seminars, teacher-tutor conferences, and formal instruction will supplement the extensive tutoring experiences. Prerequisite: Consent of the department. A minimum grade of "C" is required.

Prerequisite(s): Admission to the BS Middle Grades Math degree program

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 114 or higher on the math section of the PERT OR
- (2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

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MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):

Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:

- (1) 123 or higher on the math section of the PERT OR
- (2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
- (3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MHF 4404 - History of Mathematics

3 Credit Hours
(Offered as needed)

This course is for students pursuing an education degree with an emphasis in middle school and secondary mathematics. This course covers the evolution of mathematics from early number systems through modern mathematics. If used to meet NWFSC Teacher Education program requirements, this course requires a grade of "C" or better.

Prerequisite(s): Completion of MAC 2311 with a grade of "C" or better or concurrent enrollment in MAC 2311.

MTB 1103 - Business Mathematics

3 Credit Hours (Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

MTG 2206 - College Geometry

3 Credit Hours (Spring)

This course emphasizes Euclidean geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve the following: line segments, angles, triangles, polygons, parallel and perpendicular lines, slopes of lines, circles, and similarity. Trigonometry is presented in terms of right triangle relationships. Logic is the basis for deductive reasoning in proofs of theorems. Lines and other geometric figures are graphed in the rectangular coordinate system. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 or equivalent with a "C" or better.

STA 2023 - Statistics

3 Credit Hours ♦ (Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

Medical Office Skills

HSA 1100 - Introduction to Health Care

3 Credit Hours
(Fall)

This course provides an overview of the United States Healthcare System, including the economic, social, political, and technological forces that shape the industry. The role of state and federal government and regulatory agencies in healthcare delivery is examined. The fundamental roles and responsibilities of healthcare team members are surveyed. Healthcare safety, security, and infection control procedures will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 1107 - Word Processing I

3 Credit Hours
(Fall)

Integration of basic keyboarding and word processing – learning the keyboard, creating, editing, saving, and other word processing functions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

OST 1355 - Records Management

3 Credit Hours
(Fall)

Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2117 - Word Processing II

3 Credit Hours
(Spring)

Continuation of Typing and Word Processing I – develop keyboarding and document processing using a microcomputer.

Prerequisite(s): OST 1107 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2401 - General Office Management

**3 Credit Hours
(Spring)**

Study of practices and procedures in the modern office. Emphasis on exercising judgment, handling incoming calls and callers, processing mail, word processing systems, editing and composing techniques, travel arrangements, banking procedures, employment applications and resumes.

Prerequisite(s): OST 2117 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Meteorology

MET 1010C - Introduction to Meteorology

**4 Credit Hours
(Fall, Spring, Summer)**

Structure of the atmosphere; weather processes, systems and phenomena; climate and climatic change, economic impact of weather. May be used to satisfy the AA degree Physical Science requirement for career goals other than sciences, engineering and pre-professional fields.

Military Science (ROTC)

MSL 3201 - Adaptive Team Leadership

**3 Credit Hours
(Fall)**

Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3202 - Leadership in Changing Environments

**3 Credit Hours
(Spring)**

Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, and apply principles and techniques of effective written and oral communication.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3203 - The Joint Environment

**3 Credit Hours
(Offered as Needed)**

Provides an introduction to the joint military environment. The course provides an overview of the development of

national and regional policy through the national Security Council and national security system.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4301 - Developing Adaptive Leaders

3 Credit Hours

(Fall)

Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4302 - Leadership in a Complex World

3 Credit Hours

(Spring)

Capstone course to explore topics relevant to second lieutenants entering the army, describe legal aspects of decision making and leadership, analyze army organization from tactical to strategic level.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Music

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶

(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUM 1620 - Audio and Acoustic Fundamentals

3 Credit Hours
(Fall, Spring, Summer)

Audio and Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening. The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio and recording equipment.

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

MUN 1000 - Summer Ensemble Workshop

3 Credit Hours (Summer)

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances.

Prerequisite(s): experience in high school or a desire to learn.

MUN 1001 - Summer Ensemble Workshop II

3 Credit Hours (Summer)

An ensemble workshop and performance to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop II will be expected to participate in several scheduled performances.

Prerequisite(s): MUN 1000.

MUN 1002 - Summer Ensemble Workshop III

3 Credit Hours (Summer)

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances.

Prerequisite(s): MUN 1000, MUN 1001.

MUN 1140C - Wind Ensemble I

1 Credit Hour (Fall, Spring)

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 1310 - Women's Ensemble

1 Credit Hour (Fall, Spring)

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing NWFSC Chorus will be expected to participate in scheduled performances.

Prerequisite(s): Experience in high school choruses or choirs.

This course may be taken up to four times for credit.

MUN 1340A - NWFSC Show Choir I

1 Credit Hour
(Fall, Spring)

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): Audition, consent of department, music or performance minor.

This course may be taken up to four times for credit.

MUN 1360 - Madrigal Singers I

1 Credit Hour
(Offered Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day, such as vocal jazz, spirituals and contemporary choral works. This course is for the "first year" student.

Prerequisite(s): Audition based on vocal quality, musicianship and sight reading ability.

This course may be taken up to four times for credit.

MUN 1390 - Symphony Chorale I

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student. The Symphonic Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): audition or permission of instructor.

This course may be taken up to four times for credit.

MUN 1421 - Flute Ensemble

1 Credit Hour
(Fall, Spring)

The study and performance of flute ensemble and flute choir music in a musical group.

Prerequisite(s): audition or instructor recommendation only.

This course may be taken up to four times for credit.

MUN 1710A - Rock and Jazz Ensembles I

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his or her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble.

Prerequisite(s): Some experience in high school bands, etc.

This course may be taken up to four times for credit.

MUN 1720A - Rock and Jazz Ensembles II

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his/her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble.

Prerequisite(s): experience in high school bands.

This course may be taken up to four times for credit.

MUN 2141C - Wind Ensemble II

1 Credit Hour
(Fall, Spring)

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 2311 - Women's Ensemble II

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing Women's Ensemble will be expected to participate in

scheduled performances.

Prerequisite(s): MUN 1310

This course may be taken up to four times for credit.

MUN 2361 - Madrigal Singers II

1 Credit Hour
(Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day, such as vocal jazz, spirituals and contemporary choral works. This course is for the "second year" student.

Prerequisite(s): MUN 1360.

This course may be taken up to four times for credit.

MUN 2371 - NWFSC Show Choir II

1 Credit Hour
(Fall, Spring)

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): MUN 1340A.

This course may be taken up to four times for credit.

MUN 2392 - Symphony Chorale II

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student. The Symphony Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): MUN 1390.

This course may be taken up to four times for credit.

MUS 1905A - Independent Study – Music

1 Credit Hour
(Offered as needed)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work

which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

MUS 1934 - Music - Special Topics

3
(Offered Fall, Spring)

A defined special topics which is pursued under supervision of a faculty member and recorded through usual departmental procedures. This course may be taken up to four (4) times for credit.

MUS 2930 - Music – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

*This course may be taken up to four times for credit.

MUT 1001 - Fundamentals of Music

3 Credit Hours
(Fall, Spring, Summer)

A pre-theory course for the music major, non-music major, or for the elementary education major.

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

**3 Credit Hours
(Spring)**

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

MVB 1201 - Applied Music Secondary – Brass I

**1 Credit Hour
(Fall, Spring)**

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

This course may be taken up to four times for credit.

MVB 2202 - Applied Music Secondary – Brass II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

Prerequisite(s): MVB 1201.

This course may be taken up to four times for credit.

MVK 1211 - Applied Music – Piano I

1 Credit Hour
(Fall, Spring)

Private instruction in piano, as secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVK 1311 - Applied Music - Piano I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in Piano in the freshman year of study as the student's principal performing medium. This one hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which three-four memorized selections from standard literature will be required.

Prerequisite(s): MVK 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVK 2221 - Applied Music – Piano II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in piano, as a secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

Prerequisite(s): MVK 1211.

This course may be taken up to four times for credit.

MVK 2321 - Applied Music - Piano II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in Piano in the sophomore year of study as the student's principal performing medium. This one

hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which a memorized sonata movement and three-four memorized selections from standard literature will be required.

Prerequisite(s): MVK 1211, MVK 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVP 1201 - Applied Music Secondary – Percussion I

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVP 2202 - Applied Music Secondary – Percussion II

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice.

Prerequisite(s): MVP 1201.

This course may be taken up to four times for credit.

MVS 1016 - Applied Strings – Guitar I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction on guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1017 - Applied Strings – Bass Guitar I

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1201 - Applied Music Secondary – Strings I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVS 2026 - Applied Strings – Guitar II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

Prerequisite(s): MVS 1016.

This course may be taken up to four times for credit.

MVS 2027 - Applied Strings – Bass Guitar II

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

Prerequisite(s): MVS 1017.

This course may be taken up to four times for credit.

MVS 2202 - Applied Music Secondary – Strings II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVS 1201.

This course may be taken up to four times for credit.

MVV 1211 - Applied Music – Voice I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice.

This course may be taken up to four times for credit.

MVV 1311 - Applied Music - Voice I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in voice in the freshman year of study as the student's principal performing medium. This one hour weekly lesson is for intended voice majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which four memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVV 2221 - Applied Music – Voice II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice.

Prerequisite(s): MVV 1211.

This course may be taken up to four times for credit.

MVV 2322 - Applied Music - Voice II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in voice in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended voice majors, and requires Division Chair Approval. A major component of this class is a required juried performance at the end of the semester for which six memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211, MVV 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVW 1201 - Applied Music Secondary – Woodwinds I

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVW 2202 - Applied Music Secondary – Woodwinds II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVW 1201.

This course may be taken up to four times for credit.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

Nursing

NSP 3640 - Nursing Care of Military and Veteran Populations

3 Credit Hours
(Spring)

This course is designed to identify the unique healthcare needs of military and veteran populations in the United States in order to prepare students and practicing nurses to develop competence in designing nursing interventions within civilian and government agencies in which military members and veterans seek healthcare. In accordance with the ANA's pledge (2012) to raise awareness of the unique conditions and needs of military veterans and their families, this course supports the Joining Forces initiative to further nursing training to include specialized topics such as traumatic brain injury, posttraumatic stress disorder, trauma rehabilitation, and understanding the military and veteran's healthcare delivery system.

NSP 4275 - Introduction to Critical Care Nursing

3 Credit Hours
(Offered as Needed)

This course examines the needs of the critically ill client. As part of the human experience, the integrity of the individual and family may be disrupted by a critical illness. During such time, the critical care nurse assists the individual and family to restore life processes to a state of dynamic equilibrium. This course emphasizes the involvement through use of scientific rationale and application of the nursing process in providing care to the individual client and family. Critical care concepts and skills for promoting client and family well-being are stressed.

NUR 1021C - Nursing Process I

6 Credit Hours
(Fall, Spring)

This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psycho-social sciences in this first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to healthcare systems ethical-legal aspects of nursing practice, health and illness, communications, functional health patterns of clients, stress-adaptation, professional behaviors, and all steps of the nursing process with emphasis on assessment of older adult clients. Students begin socialization into the role of the Associate Degree Nurse as a member of an interdisciplinary healthcare team.

Prerequisite(s): Admission to the AS Nursing Program, BSC 1085C, ENC 1101, (MAC 1105 OR STA 2023)

Corequisite(s): NUR 1021L

Prereq/Corequisites: BSC 1086C, HUN 2201

Special Nursing Program policies may apply to this course.

NUR 1021L - Nursing Process I Clinical Experience

4 Credit Hours
(Fall, Spring)

This course introduces students to the role of the Associate Degree Nurse in providing direct, holistic nursing care to young, middle-aged and older adults who are hospitalized or in community settings. Students are introduced to all steps of the nursing process with a focus on assessment skills. Students will identify self-learning needs and set their own goals for improvement. Critical thinking and working effectively with peers and other healthcare professionals as a team member is expected. The demonstration of caring behaviors and therapeutic communication as a provider of bedside, technical nursing care is emphasized. Students must demonstrate safe performance of basic nursing skills, including but not limited to medication administration, physical assessment, and comfort care.

Prerequisite(s): Admission to the AS Nursing Program

Corequisite(s): NUR 1021C.

Special Nursing Program policies may apply to this course.

NUR 1141 - Pharmacologic Principles in Nursing I

1 Credit Hour
(Fall, Spring)

This course introduces students to concepts and principles of pharmacology related to safe administration of therapeutic agents within the nursing process framework. Students begin to learn major drug classifications and selected exemplars along with principles of safe, effective administration of drugs. Students will learn dosage calculations, factors that affect the absorption, excretion, distribution, and metabolism of drugs, as well as drug actions, adverse effects, and interactions.

Prerequisite(s): Admission to the AS Nursing Program

Special Nursing Program policies may apply to this course.

NUR 1142 - Pharmacologic Principles in Nursing II

1 Credit Hour
(Fall, Spring)

An introduction to the role of the associate degree nurse in providing direct, holistic nursing care to young, middle-aged and elderly adults who are hospitalized or receiving care in community settings. Emphasis is on applying all steps of the nursing process with focus on assessment skills. Pre-requisite college foundation and nursing courses provide theoretical bases for nursing care. Critical thinking is an expected behavior along with skills in working ethically and effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care of hospitalized adults and nursing home residents.

Prerequisite(s): NUR 1141 or LPN licensure and admission to the Nursing Program

Corequisite(s): NUR 1231C and NUR 1750L

Special Nursing Program policies may apply to this course.

NUR 1231C - Nursing Process II

5 Credit Hours
(Fall, Spring)

Application of the nursing process continues with emphasis on the planning and implementation of nursing care for clients experiencing threats to functional health patterns. Development of professional behaviors, such as developing therapeutic relationships continues with students working clients through life interactions. Students further develop critical thinking skills through case studies and simulation scenarios designed to provide students with problem solving skills in analyzing, planning and prioritizing care for clients whose health problems are more acute or chronic; the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief, and loss. Students learn basic management skills as a team member caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate.

Prerequisite(s): NUR 1021L NUR 1021C and NUR 1141; or LPN licensure; admission to the AS Nursing Program or permission from the program director

Corequisite(s): NUR 1750L and NUR 1142

Prereq/Corequisites: DEP 2004

Special Nursing Program policies may apply to this course.

NUR 1750L - Nursing Process II - Clinical Experience

4 Credit Hours
(Fall, Spring)

This course builds on competencies presented in Nursing Process I regarding the role of the Associate Degree Nurse in providing direct, holistic nursing care for adult clients experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, and community settings provide students with opportunities to apply the nursing process in care of clients, including the older adult. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills.

Prerequisite(s): NUR 1021L or LPN licensure

Corequisite(s): NUR 1231C.

Special Nursing Program policies may apply to this course.

NUR 1940L - Nursing Clinical Externship

3 Credit Hours (Summer)

This elective course is designed to offer students the opportunity to gain additional clinical skills practice during the summer semester. Working with a preceptor and the nursing faculty in area hospitals, clinics, or community settings, the student will be able to perform all skills learned in successfully completed nursing courses.

Prerequisite(s): admission to the AS Nursing Program; NUR 1750L or NUR 1021L

Special Nursing Program policies may apply to this course.

NUR 2233C - Nursing Process III

6 Credit Hours (Fall, Spring)

Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including during the childbearing process and children whose normal lines of defense have been invaded by stressors to the degree that hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development.

Prerequisite(s): NUR 1231C & NUR 1142 or approval from the program director.

Corequisite(s): NUR 2233L

Prereq/Corequisites: MCB 2010C

Special Nursing Program policies may apply to this course.

NUR 2233L - Nursing Process III – Clinical Experience

4 Credit Hours (Fall, Spring)

Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for the hospitalized child, the family during the maternity cycle, and adults whose health problems are more complex and/or chronic. Clinical sites include hospitals, health departments, clinics, physician offices, schools and other community settings. Conflict resolution skills are applied, as needed, to meet client and/or peer learning goals. Delegation skills with peers are also practiced. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this clinical course.

Prerequisite(s): NUR 1750L

Corequisite(s): NUR 2233C.

Special Nursing Program policies may apply to this course.

NUR 2241C - Nursing Process IV

5 Credit Hours (Fall, Spring)

Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical thinking skills in exploring case-based practice situations and work together in simulation seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development.

Prerequisite(s): Permission from the Director of Nursing or NUR 2233C; MAC 1105 or STA 2023

Corequisite(s): NUR 2241L, NUR 2811L

Prereq/Corequisites: SYG 2000

Special Nursing program policies may apply to this course.

NUR 2241L - Nursing Process IV – Clinical Experience

3 Credit Hours (Fall, Spring)

Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their four-week clinical practicum prior to graduation from the program. Students will also shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Other clinical activities will include experiences in the emergency department and critical care units. Students must demonstrate competency in all behaviors required for an Associate Degree Nursing graduate.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2811L

Special Nursing Program policies may apply to this course.

NUR 2811L - Nursing Practicum

3 Credit Hours (Fall, Spring)

This course is a capstone course and provides a time during the last four weeks of the nursing program in which students begin to transition from the student role into the graduate role as an associate degree nurse. Students attend seminar hours and complete standardized testing for evaluation in proficiency in applying all steps in the nursing process with emphasis on evaluating safe nursing care outcomes. Students complete clinical practice hours

with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients. The focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry level. Clinical experiences provide hands-on learning opportunities, enhancing clinical thinking, safe nursing judgment, and clinical confidence in skills. Clinical experiences take place in a variety of clinical settings and work schedules.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2241L

Special Nursing Program policies may apply to this course.

NUR 3067C - Health Assessment

3 Credit Hours
(Fall, Summer)

This course is designed to develop the student's knowledge for obtaining and recording a systematic, comprehensive health history, psychosocial assessment, and physical examination of the adult. The course involves the synthesis of nursing, biologic, psychologic, and sociocultural knowledge and theories as they apply to the findings obtained in the comprehensive health assessment of clients of various ages. During the fieldwork experience, emphasis will be placed on collection of a database through physical assessment, history taking and interviewing.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3071 - Writing for Success in Nursing

1 Credit Hour
(Fall, Spring, Summer)

This course is designed to develop the student's knowledge for writing at the upper division nursing level. The course includes information regarding use of APA format and scholarly writing resources.

Prerequisite(s): Student must be a Registered Nurse to take this course.

NUR 3080 - Dimensions of Baccalaureate Nursing Practice

3 Credit Hours
(Fall, Summer)

This course will provide Registered Nurses, who are returning to school to earn a Baccalaureate degree, an opportunity to advance professional practice concepts. As designed, the course engages the student intellectually in an ongoing professional dialogue and journey with peers, colleagues, and instructors that serves to broaden the student's professional development and builds on preexisting knowledge and experiences. The course curriculum is written for adult learners with the characteristics of self-direction, prior experience, applicability to practice, and motivation to meet the challenge to expand their knowledge base and to utilize advanced critical thinking skills.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3678 - Nursing Care of Vulnerable Populations

3 Credit Hours
(Offered as needed)

Caring for the vulnerable members of society is a function nurses perform without regard for their own ambitions, personal safety, and financial security. This course is designed to pull together material from different cultures and at risk groups of individuals considered vulnerable populations. Key concepts will be discussed that will provide a basic structure for caring for the vulnerable, the relevance of nursing theories to vulnerable populations, nursing research showing the kinds of phenomena nurses study, and many ideas about learning to work with and advocate for vulnerable individuals.

NUR 3826 - Nursing Ethics

3 Credit Hours
(Offered as needed)

This course provides an in-depth exploration of ethical principles and moral reasoning as the foundation of nursing practice. The ANA Code of Ethics will be used as a framework for examining current issues in healthcare delivery across the age span from reproductive issues to end-of-life care.

Prerequisite(s): Must be an RN or ASN student.

NUR 3837 - Health Care Issues

2 Credit Hours
(Fall, Spring)

This course provides a forum for the exploration and evaluation of concerns germane to contemporary nursing. The focus of this course is on the nursing profession and current major issues and problems that concern it. Social forces influencing changes in the nursing profession are analyzed in terms of historical antecedents and their current manifestations. Recently passed, and pending legislature at both the national and state levels is emphasized.

Prerequisite(s): Current RN Licensure.

NUR 3955 - Portfolio I

1 Credit Hour
(Fall, Summer)

This course will provide RN to BSN students an opportunity to develop an electronic professional portfolio to express one's professional nursing expertise and proficiency.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 4125 - Clinical Pathophysiology

3 Credit Hours
(Fall, Spring)

This course examines in detail the underlying process involved in the development, evolution, manifestations, and complications of common clinical diseases across the life span, and compares normal and abnormal states. The biological bases for therapeutic clinical actions are examined.

Prerequisite(s): NUR 3067C

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research

3 Credit Hours

(Fall, Spring)

This course is designed to provide the RN to BSN student with an introduction to the research process and evidence based practice. The purpose of the course is to stimulate interest in nursing research; to enable students to understand and judge the usefulness of scientific findings; and to develop an understanding of how clinical proficiency is combined with experimental proof to produce nursing practices based upon evidence. An on-line teaching method is used with optional workshops available to students.

Prerequisite(s): STA 2023.

NUR 4615C - Family and Community Health

5 Credit Hours

(Fall, Spring)

The Family and Community Health Nursing course is designed to facilitate the conceptualizing of family, population groups, and community as units of care from diverse cultures, ethnic, and social backgrounds. The student is provided a fieldwork opportunity to assess the health needs of selected families and groups in the community setting with selected health promotion, risk reduction, and disease prevention. The nursing process is used to examine multiple influences impacting life-course experiences of families and communities to enhance functioning.

Prerequisite(s): NUR 3067C, NUR 3080, admission to the BSN program and completion of all General Education requirements.

NUR 4827C - Nursing Leadership and Management

5 Credit Hours

(Spring, Summer)

This course provides students with an evidence-based study of leadership, collaboration, and coordination in healthcare settings. Students develop an evidence based paper to deal with key leadership and management issues related to professional goals. Nursing leadership and management fieldwork focuses on the roles and functions of the professional nurse in these roles. Issues associated with healthcare delivery are explored. Fieldwork provides an opportunity to plan, implement and evaluate a change in the practice of nursing.

Prerequisite(s): NUR 3080, NUR 4165, NUR 3067C, NUR 4615C.

NUR 4956 - Portfolio II

1 Credit Hour

(Spring, Summer)

This course will provide students an opportunity to complete and evaluate their electronic professional portfolio to express their professional nursing expertise and proficiency.

Prerequisite(s): NUR 3955, NUR 3080; Pre or Corequisite: NUR 4827C.

SPN 3036 - Spanish for Health Care Providers

3 Credit Hours
(Offered as needed)

Spanish for Health Care Providers is designed for individuals majoring in nursing or working in health-related areas. The course focuses on vocabulary needed for the healthcare workplace, with grammar taught as a task-based practical skill. Students will learn phrases used to complete health assessments which include conducting interviews, filling out forms, writing reports, and reading and understanding medical articles and brochures. Prevalent disease processes will be discussed as well as cultural practices that affect health care, specifically the health care of Spanish-speaking patients. This course does not fulfill any part of the Florida state language requirements.

Nutrition

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

Oceanography

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

OCE 1013C - Aquatic Environmental Science

4 Credit Hours
(Offered as needed)

This course will investigate living and non-living components of aquatic ecosystems. Students will learn how aquatic ecosystems function naturally as well as how human activity can alter these ecosystems. The course is built around field trip(s) and lab work during which students will obtain water quality data from a local aquatic environment. Through field trip(s) and lab work, students will gain appreciation for the local relevance of course material. For both majors and non-majors, a key outcome of such experiences will be gaining experience in using inquiry and reasoning through the scientific method and becoming comfortable with data, technology, and instrumentation. Problem-solving, interpretation of data, and class discussions will be key.

Paramedics

EMS 0119 - Emergency Medical Technician for Firefighters

140 Clock Hours
(Fall, Spring, Summer)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director

Corequisite(s): FFP 0010, FFP 0020, EMS 0119L

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 0119L - Emergency Medical Technician Lab for Firefighters

160 Clock Hours
(Fall, Spring, Summer)

This course provides an integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director.

Corequisite(s): FFP 0010, FFP 0020, EMS 0119

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1335 - Emergency Vehicle Operators Course

1 Credit Hour
(Offered as needed)

Students receive basic education and information on the safe and effective operation of emergency vehicles.

Prerequisite(s): permission of the EMS Program Director.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

**5 Credit Hours
(Spring)**

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

**2 Credit Hours
(Spring)**

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

**1 Credit Hour
(Offered as needed)**

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2350 - Unmanned Vehicles Applications and Operations for EMS

**3 Credit Hours
(Summer)**

This course examines the response of Emergency Medical Services to unsecure scenes with the aid of unmanned vehicles. Students will explore EMS protocols for the utilization of unmanned vehicles in catastrophic events with mass casualties requiring triage and multiple agency responses. Participants will be introduced to the concepts of the utilization of unmanned vehicles for support during large scale public events such as; conventions, festivals, athletic events, protest, and special team support.

EMS 2425L - Paramedic Externship

**4 Credit Hours
(Spring)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the

student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

5 Credit Hours (Fall)

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

5 Credit Hours (Spring)

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

2 Credit Hours (Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour

(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour

(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

EMS 2940 - Internship: Emergency Medical Services

3 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Philosophy

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

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¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2930 - Philosophy – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

Photography

PGY 1220C - Commercial Photography I

4 Credit Hours
(Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using a high quality digital studio camera, electronic lighting, and digital applications of their work. It is recommended that students take PGY 1801C prior to or at the same time as this course.

PGY 1401C - Basic Photography

3 Credit Hours
(Fall, Spring)

A beginning course in black and white photographic and darkroom technique. Students will learn the functions of their camera and darkroom equipment. Students will apply their technical knowledge to various artistic challenges. Access to a 35mm camera with manual mode required.

PGY 1405C - Advanced Black and White Photography

3 Credit Hours
(Fall, Spring)

An advanced course in black and white photography. Students will be presented with more demanding creative challenges and will be exposed to a variety of advanced procedures in the darkroom. Access to a 35mm camera with manual mode required.

Prerequisite(s): PGY 1401C or equivalent.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

PGY 2221C - Commercial Photography II

4 Credit Hours
(Offered as needed)

As advanced a course that allows the student to expand their skill set in producing photographic illustrations for industrial and advertising use. Students may explore product, portrait, and on-location commercial photographic projects.

Prerequisite(s): PGY 1220C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2804C - Digital Photography III

4 Credit Hours
(Offered as needed)

An advanced-level photography courses where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 2802C.

▲ Technology-Across-the-Curriculum Course.

Physical Education

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

PEL 1212A - Advanced Softball

1 Credit Hour
(Offered as needed)

Instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

PEL 1213 - Advanced Softball II

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Softball, which consists of instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1212A (Athletes)

PEL 1217A - Advanced Baseball

1 Credit Hour
(Offered as needed)

Instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

PEL 1219 - Advanced Baseball II

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Baseball, which consists of instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1217A (Athletes)

PEL 1624M - Advanced Basketball (Men)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill-oriented program designed to increase the knowledge, skill ability, and endurance

levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1624W - Advanced Basketball (Women)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including: rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1626M - Advanced Basketball II (Men)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Men, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624M (Athletes)

PEL 1626W - Advanced Basketball II (Women)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Women, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624W (Athletes)

PEM 1131A - Strength Training

3 Credit Hours
(Offered as needed)

This course is a high intensity lecture/demonstration and flexible lab hour weight training program designed to increase the size, strength, and endurance of the skeletal muscle system. Instruction includes, but is not limited to, weight training safety, etiquette, history, and nutrition. Instruction will be given in the design of progressive resistance programs to increase total body efficiency and to meet the objectives of the individual student. Students are responsible for determining fitness for training, and those with medical problems which restrict personal activities are encouraged to obtain medical clearance before enrolling in the course.

PEM 2108 - Fitness Lab

1 Credit Hour
(Offered as needed)

Instruction and participation in an exercise program with emphasis on muscle endurance, strength and flexibility.

Prerequisite(s): HLP 1081 or approved wellness assessment by the department chair.

This course may be taken up to four times for credit.

PET 1000 - Introduction to Physical Education

3 Credit Hours
(Offered as needed)

A study of the history of physical education and sport with particular emphasis placed on present practices and trends.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

Physical Science

AST 1005 - Introduction to Astrobiology

3 Credit Hours
(Spring)

This course will explore the scientific evidence for the possibility, probability, and potential nature of life that might exist beyond the Earth. Contemporary discoveries about current and past conditions suitable for the origin of life on Mars and some of the moons orbiting other planets in our own solar system are reviewed in the context of what we understand about life on Earth. The question of life in other solar systems is also covered. Space travel and problems regarding intelligent extra-terrestrial beings visiting the Earth and intelligent life beyond the Earth but still within our own solar system are also discussed. All this is done in a fashion which integrates the various branches of science required to understand life beyond the Earth: Astronomy, Biology, Chemistry, Geology, and Physics. There are no prerequisites for this course and it may be taught in a team fashion by faculty members from various scientific disciplines.

ISC 1003 - Natural Disasters – Causes, Consequences, Human Response

3 Credit Hours
(Fall, Spring, Summer)

This interdisciplinary course investigates natural catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, hurricanes and floods. This class will use an environmental studies approach to examine how modern society exacerbates the damage caused by these natural phenomena and methods to mitigate human suffering. The student will gain an appreciation of humankind's relationship to the natural environment.

ISC 4145 - Environmental Systems

3 Credit Hours
(Offered as needed)

Environmental Systems will expose students to a broad overview of the structure and processes occurring on Earth. Students will gain a broad understanding of the interactions between the atmosphere, biosphere, lithosphere, and hydrosphere. Course topics will be related to current environmental issues and our local ecosystems. This course is focused on Earth System Science content with development of methods specific to teaching middle school science as a secondary objective.

Prerequisite(s): (1) any two-course laboratory sequence in the natural sciences (i.e., Principles of Biology I & II, Principles of Geology I & II, College Chemistry I & II, Physics I & II, College Physics I & II, Anatomy & Physiology I & II); (2) any GLY course; (3) and either CHM1020 (Chemical Science) or PHY1020 (Physical Science).

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PSC 2905 - Independent Study – Physical Science

1 Credit Hour
(Fall, Spring, Summer)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the physical sciences for which present course availability is limited. Meets specific general education requirements.

This course may be taken up to four times for credit.

Physics

PHY 1053C - General Physics Without Calculus I

**4 Credit Hours ♦
(Fall)**

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

**4 Credit Hours
(Spring)**

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

**4 Credit Hours ♦
(Fall, Spring, Summer)**

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

**4 Credit Hours
(Spring, Summer)**

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

Political Science

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

Public Administration

PAD 3003 - Public Service Operations

3 Credit Hours
(Offered as Needed)

An introduction to public administration and policy in America. This course is designed to provide undergraduate students a basic understanding and appreciation of the administration of the public sector. It is intended to provide an overview of public administration for students interested in public service and for students, who as good citizens, want an appreciation of the complexities of public management.

Prerequisite(s): upper division standing.

PAD 3882 - Issues in Public Service Administration

3 Credit Hours
(Offered as Needed)

This course focuses on current issues and trends in the field of public service administration. The course is structured to introduce management and administrative topics in public service, examine the implications to the field, and reformulate recommendations. This course will begin developing skills in project design and presentation. This course will enhance critical thinking skills.

Prerequisite(s): upper division standing.

PAD 4878 - Capstone: Public Service

3 Credit Hours
(Offered as Needed)

This course provides an opportunity for the student to complete a professional project and apply information and skills studied in core and concentration program courses under the direction of the professor. Successful completion of the course requires demonstration of achievement of the program's learning outcomes. This course should be completed in the last term before graduation.

Prerequisite(s): upper division standing.

Psychology

CLP 1001 - Personal Adjustment

3 Credit Hours
(Fall, Spring, Summer)

Psychology of adjustment, application of psychological theory for problem solving and better mental health. An examination of psychological defense mechanisms and adaptive behavior.

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

Radiography

RTE 1000 - Introduction to Radiologic Technology

2 Credit Hours
(Summer, Offered as needed)

This course is designed to provide an overview of the history of radiography and the role and scope of practice of the practitioner in the healthcare delivery system. Organizations, accreditation, federal agencies, regulatory agencies

(including OSHA), and professional credentialing will be discussed. Content includes a fundamental background in medical law, ethics, human diversity, and patient consent. The student will examine a variety of ethical issues and dilemmas found in clinical practice, as well as developing a better understanding of patients, the patient's families, and professional peers through comparison of diverse populations based on value systems, cultural and ethnic influences, communication styles, and socioeconomic influences. Radiographic medical terminology and pharmacology will be covered. Site specific clinical education paperwork will be completed. Background check, drug screening, training, and clinical site approval mandatory.

Prerequisite(s): Admission to the Radiography Program.

RTE 1111 - Introduction to Radiographic Patient Care

2 Credit Hours (Fall)

This course is designed to prepare radiography students to provide basic patient care. Basic concepts of patient care will be described, as well as infection control procedures and standard precautions. This course includes hospital specific training. Health risks, life stages, HIV/AIDs and domestic violence will be discussed. This course also includes an introduction to medical and radiographic terminology. Topics include vital signs, venipuncture, body mechanics and transport, verbal/nonverbal communication, and some pharmacology.

Prerequisite(s): admission to the Radiography Program.

RTE 1418 - Radiographic Techniques I

3 Credit Hours (Fall)

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. This course introduces the student to a comprehensive study and theory of the production of x-rays and primary exposure factors of radiographic imaging. The image parameters of density, contrast, recorded detail, image distortion and blur will be studied as well as ancillary devices and equipment required to produce a quality radiographic image. Digital imaging with related accessories will be emphasized. Class demonstrations and exercises are used to demonstrate application of theory.

Prerequisite(s): MAC 1105 or other Gordon Rule math course and admission to the Radiography Program.

RTE 1457C - Radiographic Techniques II

4 Credit Hours (Spring)

This course is a continuation of RTE 1418 Radiographic Techniques I. Course content includes the basics of magnetism, electricity, motors, generators, rectifying systems, x-ray tube and filament circuitry. Topics in electromagnetism such as self and mutual induction, high voltage transformation, and AC rectification will be emphasized. An introduction of special radiographic methods will include automatic exposure control, computers, fluoroscopy and image intensification, subtraction radiography, conventional tomography, digital image receptors, and digital image acquisition and manipulation.

Prerequisite(s): RTE 1418.

Corequisite(s): RTE 1513C

RTE 1503C - Radiographic Procedures I

4 Credit Hours (Fall)

This course is designed to provide the Radiography student with instruction in radiographic examinations of the chest, abdomen, upper extremity and lower extremity. An introduction to medical and radiographic terminology, radiographic anatomy, and image critique are also included.

Prerequisite(s): BSC 1085C and admission to the Radiography program.

RTE 1513C - Radiographic Procedures II

4 Credit Hours (Spring)

This course is a continuation of RTE 1503C. It is designed to provide the student with instruction in radiographic procedures and anatomy in the distal extremities, hip region, spine, ribs, and sternum and the cranium. Critical thinking, medical and radiographic terminology, as well as image critique are emphasized.

Prerequisite(s): RTE 1503C, RTE 1804L , and BSC 1086C

Corequisite(s): RTE 1814L.

RTE 1804L - Radiography Clinical Education I

3 Credit Hours (Fall)

This course involves the practical application of the theories covered in RTE 1503C and RTE 1000. Rotations provide experience with various imaging systems, protocols, and patient care. Students observe, assist and perform basic radiographic procedures (chest, abdomen and extremities) under direct supervision. This course emphasizes patient care and critical thinking. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1000

Corequisite(s): RTE 1503C

RTE 1814L - Radiography Clinical Education II

3 Credit Hours (Spring)

This course is a continuation of Radiography Clinical Education I. This clinical training emphasizes lower and upper extremity. Medical and radiographic terminology, patient care, critical thinking and communication skills are emphasized. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1804L

Corequisite(s): RTE 1513C.

RTE 1824L - Radiography Clinical Education III

4 Credit Hours (Summer)

This course is a continuation of Radiography Clinical Education II. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I and II. The student will gain experience and develop clinical competence in general radiographic procedures such as the cranium and specialized contrast studies. Advanced patient care skills, critical thinking, imaging and exposure techniques, radiation protection application and image processing will be emphasized. This rotation covers clinical experience in all phases of fundamental radiologic procedures and image critique. Students will rotate through ancillary departments in this course.

Prerequisite(s): RTE 1814L

Corequisite(s): RTE 2523C.

RTE 2061 - Radiographic Preparation for Practice

4 Credit Hours (Spring)

This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover patient care and education, image production, equipment operation and maintenance, radiographic procedures and radiation protection. The student will also be given simulated registry examinations for practice and assessment purposes.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2854L.

RTE 2385 - Radiographic Protection and Biology

3 Credit Hours (Fall)

This course is designed to provide the student with an overview of the principles of interaction of ionizing radiation with living systems. Ionizing effects on molecules, cells, tissues and the body as a whole are presented, along with factors affecting biological response, including; acute, chronic, stochastic and non-stochastic effects. This course is also designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and healthcare organizations are incorporated, as are the various methods of monitoring radiation exposure and acceptable dose limit values.

Prerequisite(s): RTE 1000, RTE 1418, RTE 1457C, RTE 2523C

Corequisite(s): RTE 2844L.

RTE 2473 - Radiographic Quality Assurance

2 Credit Hours (Fall)

This course is designed to introduce the radiography student to evaluation methodology of radiographic systems to assure consistency in the production of quality images. Image critique, fluoroscopy, malfunctions, and specifications are some of the topics covered in the course.

Prerequisite(s): RTE 1418, RTE 1457C

Corequisite(s): RTE 2844L.

RTE 2523C - Radiographic Procedures III

3 Credit Hours (Summer)

This course is a continuation of RTE 1513C covering cranium procedures and positioning. It is designed to provide the student with instruction in more complex radiographic procedures such as fluoroscopy, urinary studies, bone age, trauma, pediatrics, mobile and surgical radiography. Included is instruction in additional modalities and studies such as CT, MRI, arthrography, myelography, and vascular studies. Attention will be given to the specialized equipment, contrast media, critical thinking and techniques necessary to perform these procedures. Radiographic anatomy, pathology, and critique of images are included in this course.

Prerequisite(s): RTE 1513C

Corequisite(s): RTE 1824L.

RTE 2533C - Radiographic Procedures IV

2 Credit Hours (Fall)

This is a continuation of RTE 2523C, with emphasis on special procedures and additional modalities. Students are required to complete observations hours within specialty areas.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2844L

RTE 2571 - Introduction to Computed Tomography

1 Credit Hour (Spring)

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Content is not intended to result in clinical competency.

Prerequisite(s): RTE 1418

RTE 2782 - Radiographic Pathology

3 Credit Hours (Spring)

This course is designed to introduce theories of disease causation and the pathophysiologic disorder that

compromise healthy persons. Etiology, pathophysiologic responses, clinical manifestations, and radiographic appearance of alterations in body systems will be presented. Emphasis will be placed on pathological findings on diagnostic radiographic images.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2854L.

RTE 2844L - Radiography Clinical Education IV

5 Credit Hours (Fall)

This course is a continuation of RTE 1824L. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I, II and III. The student will gain experience and develop clinical competence in specialized imaging procedures, and mobile, surgical and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 1824L

Corequisite(s): RTE 2385.

RTE 2854L - Radiography Clinical Education V

5 Credit Hours (Spring)

This course is a continuation of RTE 2844L. The terminal objective for this course is to prepare the student for employment as an entry level technologist. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I-IV and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2061.

Reading

REA 1205 - Reading Across the Genres I

3 Credit Hours (Offered as needed)

This college-level reading course employs a variety of literary genres as the source material for building student skills in comprehension, context clues, reading speed, critical analysis, vocabulary, and other related reading skills. Students will be exposed to numerous styles and levels of reading material including novels, short stories, critical essays, drama, news reporting. Students will also develop a personal reading preference profile and learn how to identify books, magazines and other reading material commensurate with that profile.

Prerequisite(s): PERT placement score of 106 or higher.

Religion

REL 2300 - Introduction to World Religions

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

This course will explore the principles and practices of the world's major religious traditions. The religions will be studied in their historical and contemporary forms. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

REL 2930 - Religion – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

Safety and Quality Control

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

**3 Credit Hours
(Fall)**

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETI 2408C - Welding Fundamentals

**3 Credit Hours
(Summer)**

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

Sign Language

ASL 1140 - American Sign Language I

**4 Credit Hours ♦
(Fall, Spring)**

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ASL 1150 - American Sign Language II

**4 Credit Hours
(Fall, Spring)**

This course increases the student's American Sign Language vocabulary and uses more complex expression of thoughts, ideas, and emotions and increases the receptive and expressive proficiency of the student in both sign and finger spelling.

Prerequisite(s): ASL 1140 or an equivalent course with a grade of "C" or better

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ASL 2160 - American Sign Language III

**4 Credit Hours
(Summer)**

A conversational course in American Sign Language utilizing skills and vocabulary from American Sign Language I

and II and building on these to form more complex expressions in American Sign Language. Impromptu and planned stories, dialogues and skits will be performed. Receptive and expressive finger spelling will be advanced. No voice will be used for the majority of classroom time.

Prerequisite(s): ASL 1150 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Small Business Management

SBM 2000 - Small Business Management

3 Credit Hours

(Spring)

This course provides students the opportunity to learn hands-on technical applications regarding entrepreneurship. It is designed for the student who is interested in the ownership and management of a small business enterprise.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Sociology

SYG 2000 - Sociology

3 Credit Hours ♦ ♦

(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ♦ ¶

(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of

"C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

SYG 2430 - The Family and Society

3 Credit Hours
(Fall, Spring, Summer)

An examination of the problems which arise out of participation in marriage, family and community situations. Designed to provide students with a basic understanding of the dynamics of family interaction, the effects upon the children, and the family's relationship to and participation in the community.

Social Sciences

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

ISS 1905 - Independent Study – Social Science

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the social sciences for which present course availability is limited.

This course may be taken up to four times for credit.

Spanish

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SPN 1121 - Spanish II

4 Credit Hours
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): SPN 1120 or an equivalent course with a grade of “C” or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2220 - Spanish III

4 Credit Hours
(Offered as needed)

Intermediate level review of grammar, readings in Spanish Literature, and development of conversational and writing skills.

Prerequisite(s): SPN 1121 or an equivalent course with a grade of “C” or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2221 - Spanish IV

4 Credit Hours
(Offered as needed)

Completion of intermediate level review of grammar, readings in Spanish literature, and development of conversational and writing skills.

Prerequisite(s):
SPN 2220 or an equivalent course with a grade of “C” or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

Speech and Debate

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

Sports, Fitness & Recreation

LEI 1544 - Outdoor Recreation Management

3 Credit Hours
(Fall, Spring)

This course examines the fundamental influences on outdoor recreation. The course also provides information on hazards, conservation considerations, and safety factors in planning and organizing outdoor recreations. Basic first aid, CPR, and AED training is incorporated as it pertains to outdoor recreation. Field trips may be assigned as warranted.

Theater

THE 1905A - Independent Study – Theater

1 Credit Hour
(Offered as needed)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2071 - Humanities – Cinema Appreciation

3 Credit Hours † ¶
(Fall, Spring, Summer)

An introduction to the origin, development, cultural aspects and analysis of cinema topics. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2300 - Dramatic Literature

3 Credit Hours † ¶
(Fall, Spring)

Survey of dramatic works from the Greeks to the 20th century, with emphasis on the plays of the 19th and 20th centuries; intensive investigation and script analysis with reports, lectures and discussions. This is a Gordon Rule

writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

THE 2820 - Musical Theater Workshop

3 Credit Hours
(Summer)

An introduction to creative dramatics and children's theater. Topics span a wide range of interests; creative experience, children and theater, workshop procedure, script selection, rehearsal and performance.

THE 2821 - Musical Theater Workshop II

3 Credit Hours
(Summer)

Creative dramatics introduces the many elements of theater: dance, voice and musical theater. Topics span a wide range of interests: the creative process, workshop procedures, rehearsal and performance. Creative Dramatics will focus on producing a final performance.

Prerequisite(s): THE 2820.

THE 2930 - Theater – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

TPA 2276C - Entertainment Technology - Crafts

3 Credit Hours
(Spring)

This course presents the practices and principles of advanced woodworking, welding, smithing, casting, ceramics, plaster work, fiberglass and plastic technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented that will use items created in a realized production.

Prerequisite(s): TPA 1210.

TPA 2292 - Technical Theatre Lab III

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1291

TPA 2301 - Technical Theatre Lab IV

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 2292

TPA 2331 - Costume Construction

3 Credit Hours
(Offered as needed)

An introduction to costume construction techniques and wardrobe design. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences

in costume construction.

Prerequisite(s): TPA 2232

TPA 2343 - CAD for the Theatre

3 Credit Hours
(Offered as Needed)

This course is project oriented covering fundamental through advanced material in computer aided drafting and design and its application for the theatre.

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1192 - Rehearsal and Performance III

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1191.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2120 - Improvisation

3 Credit Hours
Offered as needed

This course explores the use of creativity and imagination, engaging the actor in a wide variety of improvisational theatre games.

TPP 2141 - Acting in Shakespeare

3 Credit Hours
(Offered as needed)

This course is an introduction to the concepts, principles, and skills needed to develop characters in Shakespeare's plays. The course focuses on the hidden clues in the text to discover character choices and meaning. Specific analysis and the techniques of scansion are introduced as they relate to character interpretation. Application of these techniques will be presented in scenes and monologues.

TPP 2150 - Advanced Scene Study

3 Credit Hours
(Fall)

This course is a continuation of the processes and concepts of TPP 2111, Acting II, with the addition of new techniques to create dynamic and engaging characterizations through performance.

TPP 2220 - Auditioning

3 Credit Hours
(Offered as Needed)

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2250 - Introduction to Musical Theatre

3 Credit Hours
(Fall)

Introduction to the study of Musical Theater analysis, creation, and performance with an emphasis on singing, dancing, and acting.

TPP 2301 - Directing I

3 Credit Hours
(Offered as needed)

A beginning course in the study, development and training in directing for the theater. Although not a prerequisite, students are encouraged to take Acting I and II before Directing I.

TPP 2302 - Directing II

3 Credit Hours
(Offered as needed)

Directing II is a continued study of the basic principles of directing for the theater with emphasis in the continued study, development and training in directing for the theater.

Prerequisite(s): TPP 2301.

TPP 2533 - Stage Combat I (Unarmed & Rapier)

3 Credit Hours
(Spring)

Through in-class study and performance the student will develop an understanding of and proficiency in the safe techniques of unarmed and rapier stage combat which are required of a theatrical performer. Application of these techniques will be presented in two scenes, one for unarmed and one for rapier.

TPP 2930 - Theater Performance – Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

Transportation and Logistics

TRA 0080 - Tractor Trailer Truck Driver

320 Clock Hours
(Spring)

This course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements.

TRA 0086 - Tractor Operator

150 Clock Hours
(Fall)

This course is designed to build on the skills and knowledge students learned in the Heavy Equipment Maintenance Technician course for entry into the Heavy Equipment Operations industry. Content emphasizes beginning skills and concepts as a recommended requisite. Students study pneumatic and crawler-type tractor operations.

TRA 0650 - Natural Gas Distribution I

75 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance.

TRA 0650B - Natural Gas Distribution IB

75 Clock Hours
(Fall)

This course is prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance. This course continues the knowledge acquired in the TRA0650.

TRA 0651 - Natural Gas Distribution II

150 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

Prerequisite(s): TRA 0650

TRA 0652 - Natural Gas Distribution III

150 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

Welding

PMT 0106C - Welder Helper

150 Clock Hours
(Fall, Spring)

This course provides instruction in shop safety, the use of safety procedures and protective equipment needed in a welding shop. Course includes basic shop math, shop safety, welding equipment setup/teardown procedures.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0111C - Metal Preparation

150 Clock Hours
(Fall, Summer)

This course provides instruction in different metal preparation processes including: thermal preparation (oxygen/fuel cutting, carbon arc cutting, plasma torch cutting). The student will also learn mechanical preparation (band saw, grinder, power brush, and other metal prep equipment).

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides instruction and demonstration using Shielded Metal Arc Welding (SMAW). Topics include visually inspect of welds, and basic SMAW technical terminology. Basic structural welding techniques will be demonstrated in accordance with American Welding Society (AWS) D1.1 Structural Welding Code. Tack welding and metal joint fit of carbon steel is covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0122C - Basic Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course introduces structural fillet welds in different joint positions in accordance with AWS D1.1 Structural Welding Code. Fillet welds will be performed on carbon steel plate of various thicknesses.

Prerequisite(s): PMT 0121C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides the student with instruction on joint design, joint preparation, and fit-up, and performance of groove welds with backing. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds with backing and make acceptable groove welds with backing using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0122C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Spring, Summer)

This course provides the student with advanced instruction on joint design, joint preparation, and fit-up, and performance of open groove welds. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of open groove welds and make acceptable open groove welds in all positions using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0126C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0134C - Gas Metal Arc Welding (GMAW)

50 Clock Hours
(Spring, Summer)

This course provides instruction and demonstration using the various transfer methods and techniques of Gas Metal Arc Welding (GMAW). Topics included are safety, equipment set-up, joint design and preparation, and gases.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0145C - Flux-Core Arc Welding (FCAW)

240 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Flux-Core Arc Welding (FCAW) and basic understanding of pipe welding. Welding symbols and blueprint reading are covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0155C - Gas Tungsten Arc Welding (GTAW)

160 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to gas tungsten arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Gas Tungsten Arc Welding (GTAW), and basic understanding of pipe welding.

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding

200 Clock Hours
(Offered as needed)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the Shielded Metal Arc Weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to demonstrate pipe positions, proper electrodes selection, proper joint geometry, joint preparation, fit-up, and proper SMAW pipe welding techniques in accordance with applicable codes.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0171C - SMAW-GTAW Pipe Welding

400 Clock Hours
(Offered as needed)

This course is designed to provide the students with skills in welding carbon steel pipe using Shielded Metal Arc Weld process and Gas Tungsten Arc Weld (GTAW) processes using proper filler metals in the 2G, 5G, and 6G positions. Upon completion, students should be able to perform shielded metal arc welding process and gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in the 2G, 5G, and 6G position in accordance with the applicable code.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0173C - Specialty Pipe Welding

150 Clock Hours
(Offered as needed)

This courses covers advanced pipe welding and is designed to build advanced GTAW skills. This course covers advanced Gas Tungsten Arc Welding (GTAW) on alloy pipe and heavy wall carbon pipe.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

Zoology

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

Reading/English Developmental Ed.

ENC 0017 - Integrated Reading and Writing I

4 Credit Hours
(Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a thorough review of English grammar and conventions and practice in writing paragraphs and essays while building skills in vocabulary and academic reading comprehension. Students must pass the class with a "C" or better grade.

Prerequisite(s): Appropriate score on PERT or other approved assessment.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 0027 - Integrated Reading and Writing II

4 Credit Hours
(Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a review of English grammar and convention and practice in writing persuasive essays while building skills in vocabulary and academic reading comprehension. Student must pass the class with a "C" or better grade.

Prerequisite(s): Minimum grade of "C" in ENC 0017 or appropriate PERT or other approved assessment score.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

REA 0056 - Developmental Reading Module

2 College Prep Credits
(Fall, Spring, Summer)

This course is designed to increase the student's ability to comprehend college-level, written material (not applicable for degree completion). Conducted in a lab setting, this course is self-paced, designed to allow students to focus on their individual development of higher level reading skills and vocabulary needed for literal and critical interpretation of passages similar to those used in college texts. This course may be taken in place of REA 0017. Students must pass the class with a "C" or better and obtain a passing score on the end of course exam.

Prerequisite(s): Students must score 96-105 on the PERT or elective basis score 106 or higher on the PERT.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

Catalog Home

View the catalog by clicking on an item in the menu to the left.
"My Catalog" allows you to bookmark programs, courses and pages of special interest.

Board of Trustees

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The provisions of this publication are not to be construed as a contract between the student and Northwest Florida State College. The college reserves the right to change any provision or requirement when such action becomes necessary. Official announcements are available through the Office of Academic Affairs, Student Affairs and are posted in the Student Services Center, and when possible, listed in the Schedule of Classes. Students are responsible for meeting, in full, the appropriate requirements for graduation or program completion and are advised to work closely with counselors/advisors in planning of a program of study. Students are expected to familiarize themselves with all rules and regulations of the college.

Notice of Equal Access / Equal Opportunity and Nondiscrimination

Northwest Florida State College is dedicated to the concepts of equity and equal opportunity. It is the specific intention of the college not to discriminate on the basis of age, color, ethnicity, disability, marital status, national origin, race, pregnancy, religion, genetic information, or gender, in its employment practices or in the admission and treatment of students in its programs or activities.

Title IX of the Education Amendments of 1972 (20 U.S.C. ss1681) is an all-encompassing federal law that prohibits

discrimination based on the sex of students, employees, and third parties when appropriate, of educational institutions which receive federal financial assistance. Sexual harassment of students, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. Northwest Florida State College complies with all aspects of this and other federal and state laws regarding non-discrimination.

Anyone with questions about compliance or a complaint regarding harassment or discrimination, including sexual harassment and sexual violence of Title IX, should contact the College's Equity Coordinator using the following contact information:

Roberta Mackey

Executive Director of Human Resources, Equity Coordinator

100 College Blvd. East, Niceville, FL 32578

Building: 320

Phone: (850) 729-5337

Email: mackeyr@nwfsc.edu

Archived Catalogs

2013-2019 e-catalogs

2018-2019 e-catalog updated
through 1/9/2019

2017-2018 e-catalog
updated through 11/17/17

2016-2017 e-catalog updated through 4/19/17

2015 - 2016 e-catalog updated
through 6/1/16

2014 - 2015 e-catalog
updated through 1/6/15

2013 - 2014 e-catalog updated through 2/12/14

2012-2009 Bookmarked Catalogs

2012-2013 Instructions for Use

2012-2013 full catalog .pdf

2011-2012 Instructions for Use

2011-2012 full catalog .pdf

2010-2011 Instructions for Use

2010-2011 full catalog .pdf

2009-2010 Instructions for Use

2009-2010 full catalog .pdf

2008-1997 Catalogs by Sections or Full Catalog

2008-2009 .pdf by Sections

2008-2009 full catalog .pdf

2007-2008 .pdf by Sections

2007-2008 full catalog .pdf

2006-2007 .pdf by Sections

2006-2007 full catalog. pdf - not yet available

2005-2006 .pdf by Sections

2005-2006 full catalog. pdf - not yet available

2004-2005 .pdf by Sections

2004-2005 full catalog. pdf - not yet available

2003-2004 .pdf by Sections

2003-2004 full catalog. pdf - not yet available

2002-2003 .pdf by Sections

2002-2003 full catalog. pdf - not yet available

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2000-2001 full catalog. pdf - not yet available

1999-2000 .pdf by Sections

1999-2000 full catalog. pdf - not yet available

1998-1999 HTML Bookmarked Sections

1998-1999 full catalog. pdf - not yet available

1997-1998 HTML Bookmarked Sections

1997-1998 full catalog. pdf - not yet available

1996 and Earlier Catalogs (.pdfs)

- 1996-1997 Course Catalog
- 1995-1996 Course Catalog
- 1994-1995 Course Catalog
- 1993-1994 Course Catalog
- 1992-1993 Course Catalog
- 1991-1992 Course Catalog
- 1990-1991 Course Catalog
- 1989-1990 Course Catalog
- 1988-1989 Course Catalog
- 1987-1988 Course Catalog
- 1986-1987 Course Catalog
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- 1976-1977 Course Catalog
- 1975-1976 Course Catalog
- 1974-1975 Course Catalog
- 1973-1974 Course Catalog
- 1972-1973 Course Catalog
- 1971-1972 Course Catalog
- 1970-1972 Course Catalog
- 1969-1970 Course Catalog
- 1967-1969 Course Catalog (This catalog was used for two years)
- 1966-1967 Course Catalog
- 1965-1966 Course Catalog
- 1964-1965 Course Catalog

Browser Help

It may be necessary at times to clear the cache on a web browser. Please follow the instructions below for your browser.

Microsoft Internet Explorer

Press [Ctrl] + [Shift] + [Del] and check the "Cookies and website data " and uncheck " Preserve Favorites website data " checkboxes.

Mozilla Firefox

Press [Ctrl] + [Shift] + [Del] and change the "Time range to clear" to "Everything" and click "Clear now".

Google Chrome

Press [Ctrl] + [Shift] + [Del] and change "Clear the following items from" to "the beginning of time" and click "Clear browsing data".

Apple Safari

Press (OPTION + COMMAND + E).

Adult Education

Adult Education Courses

Adult Education Courses

ABX 01__ - Adult Basic Education - Mathematics

The Adult Basic Education (ABE) Mathematics course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 02__ - Adult Basic Education - Reading

The Adult Basic Education (ABE) Reading course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 03__ - Adult Basic Education - Language Arts

The Adult Basic Education (ABE) Language Arts course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

XEL 01__ - ESOL I

This course provides small group and individualized instruction in both oral and written English communication skills at the beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 02__ - ESOL II

This course provides small group and individualized instruction in both oral and written English communication skills at the low beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 03__ - ESOL III

This course provides small group and individualized instruction in both oral and written English communication skills at the high beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 04__ - ESOL IV

This course provides small group and individualized instruction in both oral and written English communication skills at the low intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 05__ - ESOL V

This course provides small group and individualized instruction in both oral and written English communication skills at the high intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 06__ - ESOL VI

This course provides small group and individualized instruction in both oral and written English communication skills at the advanced level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XGE 14__ - GED 2014 Comprehensive

The GED 2014 Comprehensive Preparation Program provides skills and knowledge building for each of the four content-area assessments of the Official GED 2014 Tests: Reasoning through Language Arts, Mathematics Reasoning, Science, and Social Studies. The purpose of the program is to prepare students to obtain the knowledge and skills necessary to pass the Official GED Tests and be awarded a State of Florida High School Diploma. An additional performance level will certify that the adult student is career and college ready. This program strives to motivate students not only to obtain a GED diploma, but to continue their education to earn a postsecondary degree, certificate, or industry certification.

*Course number varies with number of instructional contact hours.

All Courses Listed Alphabetically

ABX 01__ - Adult Basic Education - Mathematics

The Adult Basic Education (ABE) Mathematics course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 02__ - Adult Basic Education - Reading

The Adult Basic Education (ABE) Reading course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ABX 03__ - Adult Basic Education - Language Arts

The Adult Basic Education (ABE) Language Arts course is a non-credit course designed to develop literacy skills necessary to be successful workers, citizens and family members. Career and College Readiness (CCR) standards have been incorporated into this class. A student enrolled in the ABE program should be enrolled in all of the following courses: Mathematics, Language Arts, and Reading. ABE prepares students to enroll in a GED® Preparation course.

ACG 2001 - Accounting I

3 Credit Hours (Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours (Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2021 - Financial Accounting

3 Credit Hours (Summer)

This course is an introduction to financial accounting that specializes in the processes and principles used to prepare financial statements. This course will focus on the purpose and content of the four basic financial statements including the preparation of these statements as well as interpreting information for decision-making.

Prerequisite(s): MAC 1105 - College Algebra **3 Credit Hours ♦**, equivalent, or higher

ACG 2071 - Managerial Accounting

3 Credit Hours (Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours (Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours (Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

ACO 1806 - Payroll Accounting

3 Credit Hours (Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

AML 2010 - American Literature: 1492 - 1865

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from the pre-Colonial period to the Civil War. This course may be used for

Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AML 2020 - American Literature: 1865 - Present

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from Civil War to present. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: AML 2010 is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ANT 2100 - Introduction to Archaeology

3 Credit Hours ♦
(Offered as Needed)

Introduction to the fundamental principles, methods, and theories in archaeology. Includes a history of the development of archaeology, and examination of the nature of archaeological data and research, an introduction to archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but non-western examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ARC 1131 - Architectural Presentation

3 Credit Hours
(Summer)

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C - Design 1.1

4 Credit Hours
(Fall)

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C - Design 1.2

4 Credit Hours
(Spring)

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 1301C.

ARC 2201 - Theory of Architecture

3 Credit Hours
(Fall, Spring)

An introduction to architectural theory, selected contemporary architectural theories and movements, and their evolution and historical basis. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ETD 1102.

ARC 2303A - Design 2.1

6 Credit Hours
(Fall)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 2201.

ARC 2304 - Design 2.2

6 Credit Hours
(Spring)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior.

Prerequisite(s): ARC 2303A.

ARC 2472 - Introduction to the Technology of Architecture

4 Credit Hours
(Summer)

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501 - Architectural Structures I

3 Credit Hours
(Offered as needed)

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the Technology of Architecture.

Prerequisite(s): any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2701 - Survey of History of Architecture, Part I

3 Credit Hours
(Offered as needed)

A critical exploration of the history and theory of architecture from pre-history through the end of the 13th century. Examination of the making and intent of significant buildings and sites tracing the developments that have given meaning to the built environment and brought order to the tectonics of architecture. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2060 - Architecture History

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2930 - Art History – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours
(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours
(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1750C - Pottery I

3 Credit Hours
(Fall, Spring, Summer)

The students shall be exposed to the production of pottery utilizing all known hand building techniques. Also includes introduction to potter's wheel and basic wheel fundamentals. The first half of course is hand building, the second half is devoted to development of skills on the potter's wheel. Students also learn how to glaze pottery and make glass. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1751C - Pottery II

3 Credit Hours
(Fall, Spring, Summer)

Continues hand building of Pottery I, but major emphasis is placed upon development skills utilizing the potter's wheel. Additional glazing experimentation is also emphasized.

Prerequisite(s): ART 1750C. Please refer to catalog section regarding audit enrollment.

ART 1905A - Independent Study – Art

1 Credit Hour
(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading

achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2331C - Figure Drawing II

3 Credit Hours
(Fall, Spring)

This class is a continuation of Figure Drawing I. Emphasis is on composition and self-expression in relation to the human figure. Exploration of media and content will be encouraged.

Prerequisite(s): ART 2330C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2500C - Painting I

3 Credit Hours
(Fall, Spring)

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing, and execution thereof within a variety of subject matter. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2501C - Painting II

3 Credit Hours
(Fall, Spring)

This course is a continuation of Painting I ART 2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed.

Prerequisite(s): ART 2500C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2540C - Water Color I

3 Credit Hours
(Fall, Spring)

An introduction to water media techniques applied to various subject matter through demonstrations and various lab experiences. Open to all students. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2541C - Water Color II

3 Credit Hours
(Fall, Spring)

Allows continued experience in more complex water color technique and subject matter. Emphasis is on composition and individual expression.

Prerequisite(s): ART 2540C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours
(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

ART 2701C - Sculpture I

3 Credit Hours
(Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2703C - Sculpture II

3 Credit Hours
(Spring)

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach.

Prerequisite(s): ART 2701C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2930 - Art - Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

ART 2955 - Portfolio Development

3 Credit Hours
(Spring)

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation.

Prerequisite(s): ART 1201C, ART 1203C, ART 1300C, ART 1301C.

ASC 2560C - Unmanned Aerial Vehicles & Systems

5 Credit Hours
(Spring)

This course is a survey of unmanned aerial vehicles (UAV) and systems, emphasizing the military and commercial history, growth and applications of UAVs. Course will include basic acquisition, use and operation of UAVs with an emphasis on operations.

Prerequisite(s): ATT 1100

ASC 2564C - Unmanned Vehicle Security

4 Credit Hours
(Spring)

Participants will develop an understanding of the digital operations of an unmanned vehicle. Methods of securing digital information during the upload and downloading functions will be explored.

ASC 2949C - Unmanned Systems Practicum

4 Credit Hours
(Spring)

Practical application in a clinical setting of knowledge acquired in the classroom.

ASL 1140 - American Sign Language I

4 Credit Hours ♦
(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ASL 1150 - American Sign Language II

4 Credit Hours
(Fall, Spring)

This course increases the student's American Sign Language vocabulary and uses more complex expression of thoughts, ideas, and emotions and increases the receptive and expressive proficiency of the student in both sign and finger spelling.

Prerequisite(s): ASL 1140 or an equivalent course with a grade of "C" or better

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ASL 2160 - American Sign Language III

4 Credit Hours
(Summer)

A conversational course in American Sign Language utilizing skills and vocabulary from American Sign Language I and II and building on these to form more complex expressions in American Sign Language. Impromptu and planned stories, dialogues and skits will be performed. Receptive and expressive finger spelling will be advanced. No voice will be used for the majority of classroom time.

Prerequisite(s): ASL 1150 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AST 1005 - Introduction to Astrobiology

3 Credit Hours
(Spring)

This course will explore the scientific evidence for the possibility, probability, and potential nature of life that might exist beyond the Earth. Contemporary discoveries about current and past conditions suitable for the origin of life on Mars and some of the moons orbiting other planets in our own solar system are reviewed in the context of what we understand about life on Earth. The question of life in other solar systems is also covered. Space travel and problems regarding intelligent extra-terrestrial beings visiting the Earth and intelligent life beyond the Earth but still within our own solar system are also discussed. All this is done in a fashion which integrates the various branches of science required to understand life beyond the Earth: Astronomy, Biology, Chemistry, Geology, and Physics. There are no prerequisites for this course and it may be taught in a team fashion by faculty members from various scientific disciplines.

ATT 1100 - Private Pilot Ground School

3 Credit Hours
(Fall)

An introductory survey of the subjects pertaining to flight; aircraft operation and performance, weather, pilotage, air traffic control and Federal Aviation Regulations in preparation for the Federal Aviation Administration Private Pilot Written examination.

BCN 1230 - Building Construction Materials and Processes

3 Credit Hours
(Fall)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry.

BCN 1272 - Blueprint Reading for Commercial Construction

3 Credit Hours
(Fall, Spring)

A course to familiarize non-drafting students with techniques of blueprint reading and the fundamentals of construction methods that make blueprint reading meaningful.

BCN 1520 - Electrical Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with electrical terminology, practices, methods, code requirements and safety and health in construction.

BCN 1567 - Plumbing and Gas Construction Practices

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with Plumbing and Gas code requirements, terminology, methods, practices, processes and safety and health used in building construction.

BCN 2231 - Building Construction Materials and Processes II

3 Credit Hours
(Spring)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry. The focus of the course will cover Divisions 9 through 16 of the construction industry.

BCN 2560 - Mechanical Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with mechanical trades terminology, methods, practices, code requirements processes, and safety and health criteria in mechanical construction.

BCN 2721 - Construction Management/Planning

3 Credit Hours
(Fall, Spring, Summer)

The course covers project development and organization from pre-construction site investigation to final completion. The course will include the management of project estimates, plans, schedules, operations and safety. The student will become knowledgeable about documents used in the construction industry for bid, contracts, zoning, permits, bonds, loans specifications and drawings. Cost engineering, procurement, value engineering and quality assurance will be covered. Cost management through job cost analysis and purchase order systems will also be covered.

BCT 1763 - Construction Safety and Health

3 Credit Hours
(Fall, Spring, Summer)

A basic course in construction safety and health, covering such topics as: theories of accident causation; workplace hazards; hazard analysis and prevention; accident reporting; OSHA construction standard and safety practices; environmental safety; violence in the workplace; ergonomics; ethics and safety; workers' compensation; and stress on the job.

BCT 2761 - Structural Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with structural terminology, practices, methods, code requirements and safety, and health criteria in construction.

BCT 2770 - Construction Estimating

3 Credit Hours
(Fall, Spring)

A course in estimating as it relates to the construction industry covering references, estimating methods, take-off

organization and presentation; material take-off, cost estimating in heavy construction, mathematical formulas for estimating, quantity take-off from plan review, and computer estimating overview.

Prerequisite(s): BCN 1230, BCN 1272.

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

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BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours
(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1080 - Essentials of Anatomy and Physiology

3 Credit Hours
(Fall, Spring)

This course surveys basic structure and function of the human body with emphasis on terminology and anatomy.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦
(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours
(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 1905 - Independent Study – Biology

1 Credit Hour
(Fall, Spring, Summer)

A course designed to (1) allow a student to complete part of a course taken elsewhere and thereby complete general education requirements, (2) to go deeper into special areas of interest.

This course may be taken up to four times for credit.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

BUL 2241 - Business Law I

3 Credit Hours (Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 2242 - Business Law II

3 Credit Hours Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours (Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4333 - Contract Formation and Administration

3 Credit Hours (Fall, Spring)

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4931 - Acquisition Law Seminar

3 Credit Hours (Spring)

This course addresses contract law as applicable to formation and administration of contracts with private and governmental agencies, with emphasis on the federal government. The following topics are also included: concepts of responsiveness and responsibility, bidding procedures, mistakes, negotiation procedures, changes, claims and dispute resolution. Students will explore the typical contracting problems that can lead to litigation.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

CAP 2134C - Database Security

3 Credit Hours
(Spring)

This course is designed to provide the student with an understanding of database security concepts and practices. The objective of the course is to provide hands-on instruction in various database tasks that relate to securing the confidentiality, integrity and availability of information that is stored in a database. The student will be able to perform administrative tasks in different database management systems, as well as manage database user profiles, privileges, and roles. Different database application security models will be explored, as will the security advantages of utilizing virtual private databases. Finally, the process of database auditing will be explored, including auditing methods using various database management systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 2660

▲ Technology-Across-the-Curriculum Course.

CAP 2762 - Data Mining

3 Credit Hours
(Offered as needed)

This course offers exploration of data mining methodologies. Topics may include decision tables, decision trees, classification rules, association rules, clustering, statistical modeling, and linear models and will focus on data warehousing, data mining and data drilling.

Prerequisite(s): CGS 2541 or any programming language are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CCJ 1010 - Introduction to Criminology

3 Credit Hours
(Spring)

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; theory development in criminology, crime rates and trends, victimology and particular crime pattern areas.

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CCJ 1941 - Internship – Criminal Justice

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Permission of the instructor

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CCJ 2509 - Introduction to Gangs and Crime

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of street gangs, the social factors, and the general classifications necessary for the law enforcement, corrections, and public safety professional. This course explores the history, membership, activity, current trends, and influence of street gangs. Students will be challenged to define community-based solutions and strategies to combat the criminal activity associated with street gangs.

CCJ 2934 - Special Topics in Criminal Justice

2 Credit Hours
(Fall, Spring, Summer)

This course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

*This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CET 1600C - Networking Fundamentals

3 Credit Hours
(Fall, Spring)

This course introduces the student to the basics of Internetworking technology. This is also the first of four courses

designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study networks and layers, networking devices, IP addressing, ARP and RARP, media and design, topology, structured cabling, electricity, and electronics and network management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1610C - Routing Protocols and Concepts

3 Credit Hours
(Fall, Spring)

Basic Router terminology and configurations are studied in this course. The student will study router components, router configuration, IOS, TCP/IP, IP addressing, and router protocols. This is one of the four courses designed to prepare a student to take the CISCO Certified Network Associate Exam (CCNA).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 1600C is required.

▲ Technology-Across-the-Curriculum Course.

CET 1675C - Introduction to IP Telephony

3 Credit Hours
(Fall)

This course explains how companies are using IP Telephony equipment and software to efficiently upgrade existing telephone systems. In addition, the course will give the student a fundamental understanding of the architecture of voice communication and how signaling, call quality and public switched telephone networks operate in a LAN/WAN networking environment. The use of IP Telephony products will be discussed and how software allows companies to cost-effectively upgrade and eventually replace existing (legacy) telephone systems with more cost-effective and easy-to-use telephone equipment.

Prerequisite(s): CET 1600C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1854C - Introduction to Wireless Technology

3 Credit Hours
(Fall)

This course teaches key wireless networking topics, including wireless technology and architecture network design, types of wireless networks, and applications. Special focus on technical matters, wireless communication products, wireless networking products, and wireless LANS products. It is recommended that all students have a least a basic knowledge of networking, including protocol, the OSI module, and TCIP/IP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2179C - PC Operating Systems A+

3 Credit Hours (Fall)

This course is designed to help prepare the student to take the A+ Certification exams by making the student proficient in personal computer operating systems, including Windows. Major topics include disk and file management, system configurations, menu driven processing, graphical user interfaces, boot files, disk caching, virtual memory, device drivers, remote assistance, and security essentials and security practices.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2182C - PC Hardware A+

3 Credit Hours (Spring)

This course is designed to prepare the student to take the A+ Certification exam, by teaching the student basic technical skills needed to understand the function and operation of the major elements of personal computer systems, and how to localize and correct common hardware and software problems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2615C - LAN Switching and Wireless

3 Credit Hours (Spring)

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study LAN Switching, VLANs, OSPF, EIGRP, VTP, classless routing and Access Lists.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2620C - Accessing the WAN

3 Credit Hours (Spring)

This course introduces the student to advanced router configurations and network design. This is also the last of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study WAN technology and design, PPP, ISDN, Frame Relay, and network management.

Prerequisite(s): CET 2615C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2660 - Network Security

3 Credit Hours
(Fall, Spring)

This course provides an in-depth study of network security concepts and techniques. Students examine theoretical concepts that make computer network security unique. This course provides a practical, hands-on approach when examining networking security techniques. Students examine different network strategies, explore the advancement of network implementation, and study timeless problem solving strategies. The course is also intended to assist with preparation for the CompTIA Security+ certification.

Prerequisite(s): Knowledge of networking basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2682C - Cisco Voice over IP (VoIP)

3 Credit Hours
(Spring)

Instruction includes, but is not limited to, Voice over Internet Protocol (VoIP) theory, Voice Gateway configuration in a IP Telephony (IPT) solution, IP Phone configuration, design of VoIP networks and troubleshooting IPT networks. Students will design and configure various VoIP networks using case studies and laboratory equipment.

Prerequisite(s): CET 1675C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2685C - Fundamentals of Network Security

3 Credit Hours
(Spring)

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CISCO Security Specialist certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2854C - Fundamentals of Wireless LANs

3 Credit Hours
(Offered as needed)

Develop, implement and troubleshoot wireless networks. This hands-on, skill-based course focuses on the design,

planning and operation of wireless networks, with an overview of technologies, security, and design best practices. This course helps prepare the student for the CISCO Wireless Certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2880C - Digital Forensics Fundamentals

3 Credit Hours
(Fall and Spring)

This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. the course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2881C - Digital Forensics II

3 Credit Hours
(Spring)

Digital Forensics II builds upon the foundational knowledge learned in digital forensics fundamentals. Students will utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cell phones, smart phones, mp3 players, gps), and devices such as dvr's and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the accessdata certified examiner (ace) examination.

Prerequisite(s): CET 2880C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2891C - Wireless Network Security Certification

3 Credit Hours
(Offered as needed)

This course prepares students to secure wireless networks and protect valuable data from intruders. The following subjects are covered: intrusion tools and techniques, detection systems, WPA/WPA2/802.11i security, enterprise wireless gateways, encryption gateways, secure wireless bridging, and wireless VPN routers. This course prepares students for the compTIA wireless certification exam.

Prerequisite(s): CET 1854C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2892C - Advanced Network Security

3 Credit Hours
(Spring)

This course examines advanced network security topics including, but not limited to, advanced topics in integration of hardware firewalls, advanced topics in Intrusion Detection Systems (IDS), advanced topics in Internet Protocol-security (IPSec), and advanced topics in Virtual Private Networking (VPN) in network security design. Students will implement designs using equipment in a laboratory setting.

Prerequisite(s): CET 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2905 - Independent Study, Computer Engineering

1 Credit Hour
(Offered as needed)

This is a directed study course to provide computer engineering students with individual projects designed to meet specific needs in areas of computer engineering technology for which present course availability is limited.

Prerequisite(s): instructor or departmental chair approval. Knowledge of basic computer and keyboarding skills are strongly recommended.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2940 - Computer Engineering Internship

1 Credit Hour
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2941 - Computer Engineering Internship

2 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2942 - Computer Engineering Internship

3 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CGS 1030 - Computer Basics

3 Credit Hours

(Fall, Spring)

This is an introductory course for basic computer use, including the Internet. It addresses the use of computers for personal, business, and college purposes. It introduces the Windows operating system and Microsoft Office applications, including Word, Excel, and PowerPoint. Hands-on use of a personal computer is required.

Prerequisite(s): none

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CGS 1550 - Introduction to World Wide Web

3 Credit Hours
(Fall)

This course provides an introduction to the required hardware, software, procedures, uses and building web pages on the World Wide Web and the Internet.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1843 - Introduction to E-Commerce

3 Credit Hours
(Offered as needed)

This course is designed to provide students with an overview of the dynamics of electronic commerce and how it links information technology to business objectives. Course may not transfer to all State University System institutions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2544 - Advanced Database Concepts

3 Credit Hours
(Summer)

The aim of this course is to explore advanced database concepts including an advanced exploration of data modeling and the design and implementation of relational databases. This course will extend the students' understanding of advanced principles and techniques used in the design and implementation of modern database systems and explore database problems and potential solutions.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

CHI 1121 - Mandarin Chinese II

4 Credit Hours (Spring)

This course is a continuation of Mandarin Chinese I with additional vocabulary and grammar. Pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language.

Prerequisite(s): CHI 1120 or an equivalent course with a minimum grade of "C".

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

CHM 1020 - Chemical Science

3 Credit Hours ♦ (Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours (Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

CHM 1045C - College Chemistry I

4 Credit Hours ♦ (Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CIS 2352C - Ethical Hacking Fundamentals

3 Credit Hours
(Fall)

This course is designed to provide the student with an understanding of the techniques and methodologies of security penetration testing. This course provides hands-on instruction using the various tools and methods that security professionals use to analyze an information system in order to discover vulnerabilities and protect against information loss, cyber-terrorism, and corporate espionage. The student will be introduced to fundamental security testing concepts, gain practical knowledge of computer programming, learn how to properly document a security test, and explore the legal and ethical ramifications of penetration testing. Students will also learn how to apply the appropriate countermeasures in order to reduce the risk that an organization faces.

Prerequisite(s): CTS 1134 is required. Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CJC 2000 - Introduction to Corrections

3 Credit Hours
(Fall)

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; and problems of rehabilitation are covered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJE 1642C - Introduction to Crime Scene Technology

3 Credit Hours
(Fall, Spring, Summer)

This course explains and discusses the principals and theories in crime scene technology. The course covers

specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence, gunshot residue, blood splatter and bodies.

CJE 1735 - Unmanned Vehicle Legal Requirements and Case Law

3 Credit Hours
(Fall)

This course examines the legal requirements and limits of drone operation by law enforcement. The course will also introduce the student to case studies, guidelines, laws, and protocols for law enforcement operations in contrast to use by private citizens. Additionally, this case will examine and define expectations of privacy, based on case law as set forth by the United States Supreme Court. Case studies and Supreme Court decisions from the last century based on the fourth amendment and due process of law, will be studied for class projects. Each student will be required to submit a research paper on a specific related topic as assigned by the instructor.

CJE 2300 - Police Administration and Organization

3 Credit Hours
(Fall, Spring, Summer)

This course presents the principles of organization and administration in law enforcement including functions and activities, planning and research, public relations, personnel and training, inspection and control, records and communications and custody.

CJE 2330 - Ethics in Criminal Justice

3 Credit Hours
(Fall, Spring, Summer)

This course is a detailed exploration of ethical issues in Criminal justice with special emphasis on morality and the law, human behavior, and ethical decision making in law enforcement, corrections and the courts.

CJE 2400 - Police and Community Relations

3 Credit Hours
(Fall, Spring, Summer)

A study of the relationship of the Justice Administration agencies to the surrounding community. Examines the effect of social change and the consequences that it produces upon law enforcement, corrections, and the courts.

CJE 2600 - Criminal Investigations

3 Credit Hours
(Offered as needed)

Fundamentals of investigation; duties and responsibilities of the detective; interrogation techniques; search and techniques of protecting the crime scene; collection and preservation of evidence; modus operandi systems; scientific aids and other sources of information; court preparation and case follow-up.

CJE 2736 - Law Enforcement Applications of Unmanned Vehicles for 21st Century

3 Credit Hours
(Fall)

This course will introduce students to current law enforcement uses and abilities of unmanned vehicle systems, along with new and developing applications for exclusive use in law enforcement actions. Students will understand and explain the definitions of privacy expectations as related to law enforcement actions governed by the fourth amendment. Students will be required to participate in a course project, in which students will develop, justify and define futuristic uses on drone technologies in the law enforcement field. In this team project, a presentation is required to defend the positions and uses of drone technologies as related in the project results.

CJJ 1002 - Juvenile Delinquency

3 Credit Hours
(Offered as needed)

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJK 0001 - Introduction to Law Enforcement

12 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to law enforcement, the process for becoming a certified law enforcement officer, and the requirements of the academy program. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0012 - Legal

63 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to the criminal justice system, the chain-of-command system in law enforcement, Constitutional Law, Florida Statutes, and the Police Code of Ethics. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0013 - Interactions in a Diverse Community

42 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enhance student awareness and understanding of human diversity issues and to teach students skills to enable them to effectively interact with people of diverse backgrounds. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0014 - Interviewing and Report Writing

54 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to help the student learn vital communication skills including interviewing, note-taking, statement taking, and report writing. It also helps the student to develop survival skills, stress management skills, and problem solving skills utilizing the SECURE model. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0020 - Law Enforcement CMS Vehicle Operations

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply vehicle operations knowledge, principles and techniques to the police driving environment. This course includes classroom instruction and practical application on the driving range. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the

awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0040 - CMS Firearms

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0051 - Defensive Tactics

81 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to

college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0064 - Fundamentals of Patrol

36 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to understand Community Oriented Policing and how it is implemented as a problem solving model, and identify the SECURE problem solving model and its application in real life situations; understand officer safety issues, identify and avoid fatal errors, identify and manage stress, maintain mental and physical fitness; respond to a call, approach a suspect, make an arrest, transport a prisoner and process the prisoner at a detention facility; and understand how to direct traffic, how to enforce traffic citations, identify how to respond to alarms and conduct a building search, and search inventory and impound vehicles. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0065 - Calls for Service

36 Clock Hours

(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to respond to calls for service, disturbances, people in distress and court orders. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0077 - Criminal Investigations

51 Clock Hours

(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond appropriately to a person or property crime victim, witness, and suspect; conduct a preliminary investigation on crimes against persons and crimes against property offenses; conduct a follow-up investigation to establish a suspect's identity and/or ascertain facts of the case; and, give testimony in different types of court proceedings. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to

college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0078 - Crime Scene to Courtroom

36 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond to a crime scene, protect and survey a crime scene, process a crime scene, dust for latent prints, and document a crime scene by sketching. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0084 - DUI Traffic Stops

33 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective DUI stops, including identifying a driver under the influence of alcohol and drugs, conducting field sobriety tests, and completing a DUI investigation. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0087 - Traffic Stops

30 Clock Hours
(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective traffic stops, including ethical consideration, safety considerations, citation and warning procedures, and dealing with abandoned vehicles. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0088 - Traffic Crash Investigations

33 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to traffic crash investigations, laws pertaining to traffic crashes and procedures for responding to a traffic crash. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0092 - Critical Incidents

45 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to identify the crowd control procedures to safely and effectively disperse or control a large group of people; understand local emergency response plans; respond to a bomb threat, assesses the scene, search and evacuate a building or suspected bomb sight, identify Weapons of Mass Destruction and properly respond to a WMD incident. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096A - Criminal Justice Physical Fitness I

31 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096B - Criminal Justice Physical Fitness II

32 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0300 - Introduction to Corrections

33 Clock Hours
(Offered as needed)

This course introduces students to the legal and ethical responsibilities of a correctional officer. Legal terms and definitions are explained. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0305 - CJSTC Communications

42 Clock Hours
(Offered as needed)

This course covers the entire report writing process. Topics include interview and interrogation, interpersonal communication, and practical exercises. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0310 - Officer Safety

12 Clock Hours
(Offered as needed)

Correctional officer safety procedures are learned. Students will learn to identify potential hazards and learn how to safely respond. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0315 - Facility and Equipment

12 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for inspecting a correctional facility and equipment. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0320 - Intake and Release

18 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for admitting and releasing inmates in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0325 - Supervising in a Correctional Facility

42 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for supervising inmates in a correctional facility. They also learn to detect crimes and rule violations in various correctional facility settings. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0330 - Supervising Special Populations

21 Clock Hours
(Offered as needed)

Students learn how to identify and supervise special population groups, such as threat groups, juveniles, elderly, and mentally ill inmates. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0335 - Responding to Incidents and Emergencies

18 Clock Hours
(Offered as needed)

Students learn how to identify and respond to situations involving escapes, riots, bomb threats, fires, and medical emergencies in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0340 - Corrections CCP Physical Fitness

30 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJK 0422 - Dart-Firing Stun Gun

9 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare students in the proper use of the Dart Firing Stun in accordance with the Florida State Statutes, the United States Constitution, and case law. It includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2130 - Criminal Evidence and Procedure

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of criminal procedure particularly applied to search and seizure and evaluation of evidence.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

CLP 1001 - Personal Adjustment

3 Credit Hours
(Fall, Spring, Summer)

Psychology of adjustment, application of psychological theory for problem solving and better mental health. An examination of psychological defense mechanisms and adaptive behavior.

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

3 Credit Hours
(Summer)

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

3 Credit Hours
(Offered as needed)

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

3 Credit Hours
(Offered as needed)

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

3 Credit Hours
(Spring)

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

**3 Credit Hours
(Spring)**

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

**3 Credit Hours
(Summer)**

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

**3 Credit Hours
(Offered as needed)**

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

**3 Credit Hours
(Offered as needed)**

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2650 - Intro to Mobile Programming

2 Credit Hours
(Fall, Spring, Summer)

A broad survey of the development of mobile applications and the use of mobile devices. This course will help the student understand the development process for mobile devices, security measures that should be taken and will provide an overview of developing for both the Android and iOS mobile environments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2658 - Advanced Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the advanced IOS programming topics and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progressed into the advanced details of the UIKit, as well as several other frameworks essential for advanced development of the iPhone and iPad.

Prerequisite(s): COP 2654 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2662 - Advanced Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches advanced concepts and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CRW 2001 - Creative Writing I

3 Credit Hours
(Fall, Spring, Summer)

Instruction and practice in writing fiction and poetry. Students will submit a poetry portfolio and complete at least one short story.

CRW 2002 - Creative Writing II

3 Credit Hours
(Fall, Spring, Summer)

Advanced work in poetry and prose modes with emphasis on revision. Students will submit a poetry portfolio and write and revise at least one complete short story. Students will prepare creative work for publisher market.

CRW 2100 - Introduction to Fiction Writing

3 Credit Hours
(Offered as needed)

Practice in writing fiction using various points-of-view. Students will submit completed short stories for workshop. Upon agreement with the instructor, students may elect to develop novel chapters with synopsis. Students will prepare creative work for publisher market.

CRW 2201 - Introduction to Creative Nonfiction

3 Credit Hours
(Offered as needed)

This writing course examines the narrative possibilities of creative nonfiction. We will explore structure, technique, and authorial presence in representative works of established sub-genres, including literary journalism, travel and/or food writing, memoir, the lyric essay and collage.

CRW 2300 - Introduction to Poetry Writing

3 Credit Hours
(Offered as needed)

Practice in writing poetic forms employing poetic techniques. Students will workshop completed poems and submit a portfolio of revised poetry. Students will prepare creative work for publisher market.

CTS 1106 - Fundamentals of UNIX

3 Credit Hours
(Spring)

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in administration and certification.

Prerequisite(s): Knowledge of networking, basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1134 - Network Foundations

3 Credit Hours
(Fall)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1156C - Desktop Support

3 Credit Hours
(Fall)

This course introduces the helpdesk skills to troubleshoot hardware or software operation and application problems for end users on the desktop or client-side, based on the Windows operating system. It is designed to help prepare the student to take the two core exams (70-620 and 70-622) required for certification as an MCITP: Enterprise Support Technician students should have user-level competency with Windows and MS Office.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2143C - CompTIA Server+

3 Credit Hours
(Spring)

This course provides advanced concepts in server hardware components and troubleshooting in a non-vendor-specific environment. Introduction to server installation, server storage concepts, administering services, server roles, virtualization, performance monitoring, security, data protection, and maintenance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2163C - Windows Client Operating System

3 Credit Hours
(Spring)

This course addresses the implementation and desktop support needs of the MS client software, including installation, configuration and management of hardware and file systems, user profiles, remote users, and monitoring of resources and performance. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2302C - Windows Active Directory

3 Credit Hours
(Spring)

This course focuses on a Windows server directory service environment, including forest and domain structure, DNS, site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user/group/computer account strategies. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): CTS 1156C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2314C - Network Defense and Countermeasures

3 Credit Hours
(Fall)

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure and implement secure networks. Security topics covered in this course include firewalls, Intrusion Detection Systems (IDS), Virtual Private Networks (VPN) and policy creation using the Windows Operating System (OS), Transmission Control Protocol/Internet Protocol (TCP/IP) packet and signature analysis. The student will get hands-on instruction installing the network defense mechanisms and countermeasure applications. Software will be used for collecting, monitoring and auditing various activities; students will analyze threats and intrusions.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2321 - UNIX Administration

3 Credit Hours
(Offered as needed)

This course is designed for network administrators in a UNIX operating environment. UNIX operating system concepts, architecture and administration will be explored using Linux. Includes shell programming, database managements, rapid application development, and programming tools such as PERL and C++.

Prerequisite(s): CTS 1134 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CTS 1106

▲ Technology-Across-the-Curriculum Course.

CTS 2346C - Windows Server Administrator

3 Credit Hours
(Offered as needed)

This course will provide students with the opportunity to develop the skills required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data. Recommended knowledge level: A+, Network +, Security + and Win client operating system. This course prepares the student for the MCITP exam.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2347C - Windows Network Infrastructure

3 Credit Hours
(As Needed)

This course addresses the configuration of Windows Server network infrastructure. Topics covered include: routing and remote access, network access protection, network authentication, IPv4 and IPv6 addressing, DHCP, DNS, WINS, DFS, IPSec, and security. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2390C - Installing and Configuring Windows Server

3 Credit Hours
(Fall)

This course is the first of a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total collectively cover implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skill set and tasks across the courses, this course primarily covers the initial implementation and configuration of those core services, such as Active Directory Domain Services, networking services, and initial Hyper-V configuration and is also preparation material for, Exam 70-410: Installing and Configuring Windows Server.

Prerequisite(s): CTS 2163C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2391C - Administering Windows Server

3 Credit Hours
(Spring)

This course is the second in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skills and tasks across the courses, this course will primarily cover

the administration tasks necessary to maintain a Windows Server infrastructure, such as user and group management, network access and data security and is also preparation material for, Exam 70-411: Administering Windows Server.

Prerequisite(s): CTS 2390C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2392C - Configuring Advanced Windows Server

3 Credit Hours
(Summer)

This course is the third in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server Infrastructure in an existing enterprise environment. While there is some cross-over in skill sets and tasks across the three courses this course will primarily cover advanced configuration and services tasks necessary to deploy, manage and maintain a Windows Server infrastructure, such as identity management and identity federation, network load balancing, business continuity and disaster recovery, fault tolerance and rights management. This course is also preparation material, and maps directly to, Exam 70-412: Configuring Advanced Windows Server Services.

Prerequisite(s): CTS 2391C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2437 - Administering SQL Server Database

3 Credit Hours
(Offered as needed)

This course provides students with the skills required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This is preparation for the MCP exam, an elective requirement for Windows MCSA/MCSE.

Prerequisite(s): CTS 1134 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2438 - Advanced SQL Server Database

3 Credit Hours
(Offered as needed)

This course provides students with advanced topics required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This course is designed to prepare the student for certification, an elective requirement for the Windows MCSA/MCSE.

Prerequisite(s): CTS 2437 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2440 - Introduction to Oracle

3 Credit Hours
(Offered as needed)

An introduction to Oracle and the design and creation of relational databases (using Oracle). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL) integrated into Stored Procedures, Functions, Packages and Triggers (PL/SQL Programming).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

DAA 1100 - Fundamentals of Modern Dance

2 Credit Hours
(Fall, Spring,, Summer)

This beginning dance class serves as an introduction to the art of contemporary dance. It includes instruction and practice in basic modern dance techniques, improvisation, dance forms and brief historical overview.

This course may be taken up to four times for credit.

DAA 1101 - Modern Dance II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

This course includes a continued analysis of the modern dance at an intermediate level. Instruction and practice in specific contemporary dance techniques and performance qualities will be stressed.

This course may be taken up to four times for credit.

DAA 1104 - Modern I for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to affect an understanding of the art of the modern dance. It includes a brief history of the dance; instruction and practice in basic dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time. This course maybe taken 4 times for credit.

This course may be taken up to four times for credit.

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1201 - Ballet II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

Intermediate Ballet is designed to train the student in the tradition of the art of the classical ballet beyond the basics. Continued development of the body as an expressive instrument for ballet movement will be stressed as students reach the proficiency level necessary to perform the more complicated steps of an intermediate class.

This course may be taken up to four times for credit.

DAA 1204 - Ballet I for Majors

2 Credit Hours
(Fall, Spring, Summer)

A beginning dance course designed to serve as an introduction to the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1500 - Jazz I for Non-Majors

1 Credit Hour
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken four times for credit.

DAA 1500A - Beginning Jazz

1 Credit Hour
(Fall, Spring, Summer)

This course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken up to four times for credit.

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical theater auditions.

This course may be taken up to four times for credit.

DAA 1521 - Tap II

1 Credit Hour
(Fall, Spring)

The Tap II dance class includes a more in-depth history of tap dance, instruction and practice utilizing tap and exploring its various styles.

Prerequisite(s): DAA 1520.

This course may be taken up to four times for credit.

DAA 1580 - Musical Theater Dance I

1 Credit Hour
(Summer)

This beginning course covers the study of musical theater dance techniques and styles as related to a specific performance experience, usually Creative Dramatics. Students must participate in designated rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 1680 - Dance Workshop

1 Credit Hour
(Fall, Spring)

This course includes instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

This course may be taken up to four times for credit.

DAA 1681 - Dance Ensemble

1 Credit Hour
(Fall, Spring)

The student shall participate in the preparation and performance of original dance compositions to include Dance Line and Show Choir performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 1934C - Dance--Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a Collegiate High School student to pursue a course of study in applied dance. This course may be taken up to four (4) times for credit.

DAA 2105 - Modern II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to further the student's understanding of the art of the modern dance. It includes continued study in history of the dance; instruction and practice in intermediate level dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2205 - Ballet II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance course is designed to serve as an further training in the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2505 - Jazz II for Majors

2 Credit Hours
(Fall, Spring)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time. This course may be taken 4 times for credit.

Prerequisite(s): DAA 1504

DAA 2581 - Musical Theater Dance II

1 Credit Hour
(Summer)

The continued study of Musical Theater dance techniques and styles as related to a specific performance experience, usually Summer Ensemble Workshop. Students must participate in rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2610 - Dance Composition

2 Credit Hours
(Fall, Spring)

An introduction and practice in the application of compositional tools encourages the student to explore and compose dance. By studying the body's movement in time and space the student will improve technical skills, develop improvisation and choreographic skills and enhance overall dance performance. Previous dance experience is helpful.

This course may be taken up to four times for credit.

DAA 2682 - Dance Workshop II

1 Credit Hour
(Fall, Spring)

This course includes continued instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

Prerequisite(s): A demonstration of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography)

1 Credit Hour
(Fall, Spring)

This course includes the continuation of study and participation in all rehearsals of selected works of dance repertory and/or original choreography culminating in public performance.

This course may be taken up to four times for credit.

DAN 1750 - Dance Conditioning

1 Credit Hour
(Fall, Spring)

Dance Conditioning is an excellent course in which to begin your dance training. It is designed to improve fundamentals for the beginning/intermediate student through daily practice in floor work, yoga, and Pilates exercises. This movement class will get you ready to meet the challenges of other dance classes by toning, strengthening and preparing the body to move.

This course may be taken up to four times for credit.

DAN 2120 - Dance Appreciation

3 Credit Hours
(Offered as needed)

This course is a study of the development of dance as an art form, as entertainment, and how it relates to the history of cultures and societies, emphasizing the evolution of dance in the specific genres such as ballet, modern dance, jazz dance, and world dance forms. Designed to heighten student awareness of dance as an integral part of society and establish an appreciation of dance's impact on the making of art. This course will give the student a foundation level understanding of dance as an art form and its historical and cultural significance. The major periods of dance history, master choreographers, and their works will be explored through lecture, discussion and media presentation. DAN 2120 is not an activity course.

DEA 0020 - Pre-Clinical Procedures Theory

60 Clock Hours
(Offered as needed)

This course is designed to provide an introduction to the dental assisting profession to include orientation to four handed dentistry and general dental office procedures including, but not limited to basic principles of disease prevention, patient data collection and assessment, and instrumentation. Emphasis is on adhering to safety guidelines as specified by OSHA.

Corequisite(s): DEA 0020L.

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DEA 0020L - Pre-Clinical Practice Lab

90 Clock Hours
(Offered as needed)

This is a comprehensive chair side competency based course. The course provides the skills practice necessary for dental assisting students entering four handed dentistry practice including but not limited to infection control, taking and recording vital signs, assisting with operative procedures, principles of preventive dentistry, instrument identification, and use and maintenance of equipment. Emphasis is on aseptic technique and clinical competency with procedures performed in a contemporary dental practice.

Corequisite(s): DEA 0020, DES 0103L.

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DEA 0130 - Oral Pathology

30 Clock Hours
(Offered as needed)

This course is a general study of the scientific and clinical concepts that include additional knowledge base necessary to the practice of dental assisting. Students will study the normal and abnormal conditions of the oral cavity such as dental caries prevention, the dental caries process and recognition of various common pathological conditions. Oral pathology, histology and embryology are included. Emphasis is on the interrelationship of the information presented with the clinical practice of dental assisting.

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DEA 0803L - Clinical Practice I

150 Clock Hours
(Offered as needed)

This competency based clinical course provides a real world setting in which to integrate the laboratory and clinical skills learned in the classroom. The student receives closely supervised hands on training in chair side dental assisting through rotations at community dental offices. Progress is evaluated using predetermined competency guidelines. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 90 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Corequisite(s): DEA 0020, DEA 0020L.

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DEA 0852L - Clinical Practice II

180 Clock Hours
(Offered as needed)

This course is a continuation of Clinical Practice I. It provides a real world setting for students to receive additional training in the clinical skills learned in class. Students are assigned to various offices in the community including but not limited to general dentists, oral surgeons, orthodontists, periodontists, and endodontists. Performance evaluations are utilized to measure competency and provide feedback from the local dental offices to the instructor regarding the

students' competency level. Skills are strengthened in Seminar Lab. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 150 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Prerequisite(s): DEA 0803L, DES 0400

Corequisite(s): DES 0830, DES 0830L.

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DEA 0936 - Dental Assisting Seminar

60 Clock Hours
(Offered as needed)

This course is designed to provide a review of materials commonly covered on the Dental Assisting National Board (DANB) Exam. Topics include but are not limited to infection control, general chair side procedures, and radiographic technique. The seminar will provide a mock board examination, and opportunities for review, problem solving, and strengthening skills. The course also serves as an opportunity for feedback from students' Clinical Practice.

Prerequisite(s): DEA 0852L, DEA 0803L, DES 0205, DES 0205L

Corequisite(s): DEA 0803L, DES 0206L.

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DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

DES 0103 - Dental Materials

60 Clock Hours
(Offered as needed)

This course is a comprehensive study of the theory of manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. The competency based lab that accompanies this course includes exercises to illustrate application and use of selected materials. Students will study various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, as well as acrylic plastics. Students will become familiar with various pieces of dental laboratory equipment and their uses.

Corequisite(s): DES 0103L, DEA 0020L.

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DES 0103L - Dental Materials Lab

90 Clock Hours
(Offered as needed)

This course is a comprehensive study of the manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. Emphasis is on practical application as it relates to the role of the dental assistant in the contemporary dental practice. It is a competency based lab that accompanies the theory course and includes exercises to illustrate application and uses of selected materials. Students practice the use of various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, and acrylic plastics.

Corequisite(s): DES 0103, DEA 0020L.

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DES 0205 - Dental Radiology I

60 Clock Hours
(Offered as needed)

This course is designed to introduce the theory, application and principles of radiographic exposure and processing techniques used in dentistry. Students will receive instruction including but not limited to historical data, radiation safety, exposure, processing, mounting and error prevention. Image interpretation of radiographic anatomical structures will be included.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205L.

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awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

DES 0205L - Dental Radiology Laboratory I

60 Clock Hours
(Offered as needed)

This laboratory course assists students in radiographic performance techniques using DXTR manikins to achieve competency prior to exposure of various patients with varied dentitions. Students practice exposing, mounting, radiographic interpretation, safe darkroom procedures, identification of landmarks and distinguishing radiographic pathology from normal landmarks. Clinical radiographic skills necessary to produce diagnostic quality radiographs including bitewings, periapical radiographs, and panoramic x-rays will be covered. Emphasis is on patient and operator safety guidelines and producing diagnostic quality radiographs.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205.

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DES 0206 - Dental Radiology Theory II

30 Clock Hours
(Summer)

Students will learn to identify the normal landmarks of intraoral and extra oral images. They will also be able to demonstrate the ability to interpret x-rays and recognize and identify abnormalities on dental images. Students will learn how to discuss their finding with a dentist, without overstepping the boundaries of diagnosing, from a dental image. Students will be able to explain the differences in cancellous and cortical bone. Students will be able to use an x-ray to identify different restoration types and irregularities in those restorations. Students will be able to point and identify trauma, pulpal lesions and periapical lesions on an x-ray.

Prerequisite(s): DES 0400, DES 0205, DES 0205L, DEA0020, DEA0020L

Corequisite(s): DES 0206L

DES 0206L - Dental Radiology Laboratory II

30 Clock Hours
(Summer)

This laboratory course assists students in additional radiographic performance techniques to include surveys on patients with varied dentitions. Students practice advanced radiographic exposure techniques, interpretation, additional darkroom procedures, identification of landmarks and distinguishing various radiographic pathology. Clinical radiographic skills necessary to produce diagnostic quality x-rays including bitewing, radiographs, periapical radiographs, and panoramic surveys on actual patients are implemented. Emphasis is placed on patient and operator

safety guideline and producing diagnostic quality radiographs. This course will involve live patients, scheduling appointments and presenting prescriptions for x-rays from local dentist.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L, DES 0205L

Corequisite(s): DES0206

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DES 0324 - Interpersonal Communications Skills

30 Clock Hours
(Offered as needed)

This course is designed to implement interpersonal and effective communication skills in the practice of dentistry. It includes team building strategies, oral and written communications skills with the correct use of terminology commonly used in dentistry. Professionalism in verbal and nonverbal communications is emphasized. Students will be introduced to the legal and ethical scope of responsibilities for dental assistants and interpersonal relations in the dental office. Providing oral health instructions and post operative instructions for patients will be introduced. Scenario-based role playing is used to augment student learning of course content.

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DES 0400 - Dental Anatomy

90 Clock Hours
(Offered as needed)

This course provides a detailed study of the orofacial and related structures of the head and neck including, but not limited to the eruption, identification and function of the human dentition, study of bony, circulatory, muscular and nervous systems of the head, neck and surrounding structures associated with the oral cavity. A brief introduction to oral histology and embryology will be included.

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DES 0501 - Dental Practice Management

60 Clock Hours
(Offered as needed)

This course includes theory and content relating to practical administrative duties performed in the dental office.

Lectures and role playing activities are related to the responsibilities of the dental assistant. Topics include but are not limited to appointment scheduling, billing, collections, record keeping, clerical and dental supply inventory. Students are introduced to the use of dental practice software with hands on computer experience. Legal responsibilities, interpersonal relations, and interview skills are included.

Prerequisite(s): DES 0205, DES 0205L

Corequisite(s): DEA 0936.

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DES 0602 - Pharmacology and Dental Office Emergencies

30 Clock Hours
(Offered as needed)

This course is designed to familiarize the dental assisting student with the basic concepts and considerations regarding pharmacology and pharmaceuticals used in dentistry. Topics presented include nitrous oxide monitoring, emergency procedures and protocol. Lectures will include recognition of emergency conditions in the dental office, not limited to syncope, anaphylaxis, and cardiovascular incidents. Emphasis is placed on the role of the dental assistant in the prevention and management of dental office emergencies.

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DES 0830 - Expanded Function Theory

30 Clock Hours
(Offered as needed)

This course introduces the dental assisting student to the dental specialty practices and more advanced clinical skills. It also provides the theory of dental specialty practice administration as it relates to the role of the dental assistant including ethical and legal ramifications. Lectures relate topics including but not limited to dental specialty procedures, instruments used in the specialty practices and duties delegated to dental assistants according to the rules and regulations of the Florida Dental Practice Act. Role playing and problem solving activities using case studies relate to duties delegated to dental assistants.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830L.

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DES 0830L - Expanded Functions Lab

60 Clock Hours

(Offered as needed)

This laboratory course accompanies the clinical practice lecture course DES 0830 and provides opportunity for students to practice application of the duties delegated to dental assistants according to the Florida Dental Practice Act. Students become more proficient in more advanced skills. Competencies containing information and behavioral objectives allow students to master each skill before advancing to the next.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830.

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DES 0844 - Infection Control for Dental Assistants

30 Clock Hours

(Offered as needed)

This course is a general study in biomedical sciences of preventive dentistry to familiarize the dental assisting student with basic principles of microbiology, basic body structures, and their functions and effects as manifested in the oral cavity. The course also covers the effects of nutrition and the role of microorganisms in dental health and blood borne pathogens.

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DSC 1002 - Domestic and International Terrorism

3 Credit Hours

(Offered as needed)

This course is designed to assist students in recognizing and understanding the elements and objectives of terrorism and 4th Generation Warfare and how they affect public safety planning and response operations.

DSC 1004 - Introduction to NRF and NIMS

3 Credit Hours

(Offered as needed)

Designed to inform emergency responders and planners of the key elements in the National Response Framework (NRF) and the National Incident Management System (NIMS) and their relationship to planning and response operations. The curriculum includes classroom exercises.

DSC 1222 - Psychological Management of Disaster Victims

3 Credit Hours
(Offered as needed)

This course introduces students to a general overview of terrorism and the potential psychological effect of terrorist events on victims.

DSC 1250 - Unmanned Vehicles Fundamentals for Disaster Management

3 Credit Hours
(Spring)

This course examines the protocol and interagency support concepts for the utilization of unmanned vehicles in preparation and response of catastrophic events. Students will be introduced to the development of an emergency response plan which will include unmanned vehicle concepts such as observation, communications, safety, training, and also integration between Public safety agencies.

DSC 1552 - Critical Infrastructure Protection

3 Credit Hours
(Offered as needed)

This course introduces participants to the Critical Infrastructure Protection (CIP) process to secure the effective protection of the people, physical entities, and cyber systems that are critical. The CIP course will guide leaders in the systematic protection of critical infrastructures. More basically, the course will introduce decision sequence that assists leaders and future leaders in ultimately determining exactly what really needs protection as well as when. The course will introduce a time-efficient and resource-restrained practice that ensures the protection of only those infrastructures upon which survivability, continuity of operations, and mission success depend.

DSC 1562 - Homeland Security Threat Strategy

3 Credit Hours
(Offered as needed)

This course addresses problems of terrorism from a criminal justice perspective. It is designed to provide students with an understanding of the major issues associated with responding to terrorism in a democratic society. The course focuses on the threat of terrorism to the United States and will review specific strategies to deter terrorist threats to the U.S. The course will assess the relative effectiveness of anti-terrorist activities.

DSC 1631 - Planning Considerations for Terror Prevention

3 Credit Hours
(Offered as needed)

This course introduces participants to various aspects of planning for potential terrorist activity. The student will be introduced to basic principles of emergency management, communications, security threats, and the effects these operations may have on personnel. The student will learn techniques for evaluating their own jurisdiction's vulnerability against terrorist attacks. Students will gain knowledge of the roles and responsibilities of local agencies during terrorism responses. The course introduces participants to various aspects of emergency management of terrorist activity.

DSC 1751 - Homeland Security Policy and Law

3 Credit Hours

(Offered as needed)

This course introduces participants to the major debates about balancing democratic freedoms with security from the Patriot Act to Supreme Court decisions on detention powers. The course provides insight into legal strategies necessary to confront ongoing national security threats. The course examines laws designed to preserve both our security and our democratic way of life.

DSC 2055 - Issues in Disaster Response

1 Credit Hour

(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

DSC 2056 - Disaster Response Operations

3 Credit Hours

(Offered as needed)

This course examines the response protocol, logistics, responsibilities, interagency support, and concepts of front end planning involved in preparation for a catastrophic event. Students will be introduced to the development of an emergency response plan that will include concepts such as lookout, awareness, communications, escape, safety (laces), training, and various agency relationships.

DSC 2900 - Development of Unmanned Vehicle Applications

3 Credit Hours

(Fall, Spring, Summer)

Students complete a project that demonstrates excellence by applying the knowledge of unmanned drones gained from the public safety core courses. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

ECO 2013 - Economics I

3 Credit Hours ♦

(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours (Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

EDE 4223 - Integrating Art, Music, and Physical Education

3 Credit Hours (Summer)

This integrative course provides students with critical understanding of art, music, and physical education. Emphasis is placed on the effective integrative lesson planning and modeling techniques to art, music, and physical education in elementary schools. This course requires a minimum grade of "C".

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4226C - Integrated Language Arts, Social Science and Literature

3 Credit Hours (Fall, Spring)

This course is designed to prepare candidates to teach language arts and social science in elementary classrooms. Teacher candidates will develop units of study that integrate literature, language arts, with social science content. Emphasis is on constructivist principles and methodology. Teacher candidates will plan and deliver standards-based language arts and social science lessons designed to meet the needs of diverse learners including English language learners (ELLs) and students with exceptionalities. This course requires 18 hours of field experience in a K-6 classroom setting. Current background check (fingerprinting) acceptable to the district in which the field experience will take place is required for this course. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4930C - Professional Elementary Educator

1 Credit Hour (Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace. Includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

EDF 1005A - Introduction to the Teaching Profession - A

3 Credit Hours

(Fall, Spring, Summer)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. This course is intended for those students that are not planning to enter a degree program leading to teacher certification. An additional fingerprinting cost may be associated with this course. If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

EDF 1006 - Field Experience in Education

1 Credit Hour

(Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department chair.

EDF 1006A - Field Experience in Education

2 Credit Hours

(Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department director.

EDF 2085 - Introduction to Diversity for Educators

3 Credit Hours

(Fall, Spring)

This course will provide the student with the opportunity to explore personal values and attitudes toward cultural diversity. Designed for the prospective educator, the theoretical component will examine the issues of teaching in culturally diverse classrooms. An eighteen-hour field experience and examination of educational materials will enhance the student's understanding of multiculturalism. An additional fingerprinting cost may be associated with this course. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EDF 3214 - Human Development and Learning

3 Credit Hours

(Summer)

This course is designed to cover the principles of learning and student development with applications to learning/teaching situations. Identification and analysis of students' academic, physical, cognitive, emotional, motivational, and social development is to be emphasized. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3430 - Measurement, Evaluation, and Assessment in Education

3 Credit Hours

(Fall, Spring)

This course studies the basic principles and methods of measurement, evaluation, and methods of test construction. Students will interpret standardized test scores, construct teacher-made tests and other classroom assessments, and evaluate portfolio and performance assessment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3910A - Projects in Teacher Education

1 Credit Hour

(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing an artifact required in the B.S.E. program. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

EDF 3910P - Projects in Teacher Education – Field Placement

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing field experience in the B.S.E. program. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 3343 - Instructional Strategies

3 Credit Hours
(Fall, Spring)

This course provides an overview of instructional models and strategies. Emphasis is placed on principles of state standards, instructional methods, and lesson planning and instruction. Students will develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student populations. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C

EDG 3410 - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring) Online Only

Practicing teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. This course is restricted to practicing teachers.

Prerequisite(s): upper division standing.

EDG 3410C - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring)

Pre-service teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 4940 - Internship

9 Credit Hours (Offered as needed)

Supervised teaching in a public or private school. Student teaching assignments will be made by the department of teacher education field placement coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing with permission of department chair.

EDE 4223, EDE 4226C, EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, LAE 4343C, MAE 3350C, RED 3309C, RED 3511C, RED 4312, RED 4519C, SCE 3350C, TSL 3081C, TSL 4140C

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours (Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours (Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1401 - The Family In Early Childhood Education

3 Credit Hours (Fall, Spring, Summer)

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEC 3213 - Teaching the Language Arts In Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on the development of language and literacy in children ages birth through age four. Emphasis will be placed on understanding the process of emergent literacy including vocabulary and language, phonological awareness, print knowledge and comprehension; and on designing a developmentally appropriate language arts program in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3227 - Art, Music, and Movement

3 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of the creative developmental process in the life of children from birth through four years old. Emphasis will be placed on the teacher's role in developing opportunities and materials for young children to express themselves creatively through music, drama, dance and two- and three-dimensional art and on providing varied opportunities for young children to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies

3 Credit Hours
(Offered as needed)

This course is designed to prepare students to teach social studies in the early childhood classroom. Emphasis is on implementing the project approach to investigate components of social studies to include: individual development and identity; people, places, and environments, technology and our world; and civic ideals and practices. The student will increase and apply knowledge and skills in the Florida Early Learning and Developmental Standards relevant to this content area.

EEC 3511 - Curriculum for Infants and Toddlers

3 Credit Hours
(Offered as needed)

The focus of this course will be on the design, implementation and evaluation of programming and curriculum that promotes growth and development of young children birth to three years old and aligns with the early learning and developmental standards. Study of typical and atypical development will be included. Emphasis will be on working effectively with families of infants and toddlers.

EEC 3524 - Professionalism/Program Development

4 Credit Hours
(Offered as needed)

Focus of this course will be on management and leadership in early childhood education programs. Topics will include mentoring adults, professional development, staff assessment, program evaluation, and child advocacy. Career options in the field of early childhood education will be explored. This course will require observing and participating in a program or agency related to early childhood education.

EEC 4404 - Families and Diversity

3 Credit Hours
(Offered as needed)

This course will focus on building positive relationships with families through communication and involvement. Focus will include developing an awareness of diversity and multicultural considerations in working with families of young children. The course will explore the role of the family and the influence of the community on the development of young children in a diverse society; and will prepare the student to work effectively with families and communities.

EEC 4421 - Teaching Math and Science in Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of how concepts, skills and attitudes in early childhood mathematics and science are developed in young children ages birth through age four. Math topics will include number sense and operations, patterns, geometry, and measurement. Science topics will include scientific inquiry, physical science, life science and earth science. Emphasis will be on the alignment of the Early Learning and Developmental Standards with a developmentally appropriate approach to teaching math and science in the early childhood classroom. This course will require observing and participating in an early childhood classroom.

EEC 4613 - Systematic Observation and Assessment

3 Credit Hours
(Offered as needed)

The focus of this course will be on understanding the purpose of child assessment, implementing developmentally appropriate practices in formal and informal child assessment, and using assessment results to support learning, to identify special needs, to evaluate programs, and to respond to program accountability requirements. A field experience is required to practice various methods of assessment in an early childhood setting.

EEC 4714 - Facilitating Social Development In The Classroom

3 Credit Hours
(Spring, as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

Prerequisite(s): Upper Division Standing

EEC 4940 - Internship

9 Credit Hours
(Fall, Spring)

Supervised teaching in an assigned Early Childhood Education setting. Student teaching assignments will be made by the Department of Teacher Education Office. This course requires a minimum grade of "C". Current background check (fingerprinting) is required for this course.

Prerequisite(s): Upper Division standing with permission of Department Chair

EEL 2603C - Robotics-Mechanics and Controls

3 Credit Hours
(Fall)

This course introduces the student to robotics. Instructional topics will include robot classifications, applications, Input/Output (I/O) and sensor interfacing.

Prerequisite(s): ETS 1542C

EET 1015C - Electricity/Electronics I, DC Circuits

3 Credit Hours
(Fall, Spring)

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieiving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

3 Credit Hours
(Fall, Spring)

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws,

Thieving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

EET 1141C - Solid State Electronics

3 Credit Hours
(Fall, Spring)

This is the third course required for Electronics Aide certificate. This course introduces the student to the concept, components, and uses of solid state electronics. Topics include semiconductor devices; thyristors and diodes, transistors, amplifiers, power supplies, oscillators, and optoelectronics. The use of capacitors and inductors in solid state electronics will be also covered. The design, set-up, and troubleshooting solid state circuits and devices using various power supplies and function generators will be dispersed throughout the class.

Prerequisite(s): EET 1025C

EET 1180C - Industrial Electronic Troubleshooting

3 Credit Hours
(Fall, Spring)

This course covers troubleshooting procedures for a variety of electronic equipment and circuits common to industrial applications. The student will develop and implement trouble shooting protocols and plans, equipment monitoring plans, a preventive maintenance plan, and select appropriate test and monitoring equipment. Safety in an industrial setting will be stressed and reinforced through a series of lab exercises throughout the course.

Prerequisite(s): EET 1084C

EET 2155C - Linear Integrated Circuits

3 Credit Hours
(Fall, Spring)

This course covers the fundamentals and applications of linear integrated circuits and operational amplifiers. The course covers includes inverting and non-inverting amplifiers, comparators, signal generators, differential and instrumentation amplifiers, operational amplifier specifications, active filters, modulator-demodulator integrated circuits, timers, analog to digital converters (ADC), and digital to analog converters (DAC) and measurement and analysis of linear circuits and devices.

Prerequisite(s): EET 1015C, EET 1025C

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours

(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3070 - Methods of Inclusion and Collaboration

3 Credit Hours

(Summer)

This course examines the basic identification techniques and strategies used to promote academic and social integration and interaction of "mainstreamed" exceptional students. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3604 - Classroom Management in Early Childhood Education

3 Credit Hours

(Offered as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

EEX 4201 - Young Children with Special Needs

3 Credit Hours

(Offered as needed)

The focus of this course will be on working with young children birth through age four in an inclusive early childhood classroom. Emphasis will be on identifying typical and atypical development, creating an inclusive early childhood learning environment, understanding special education law, developing an awareness of resources for inclusive practice to meet the needs of young children and their families.

EGN 1111C - Engineering Graphics

3 Credit Hours

(Fall, Spring, Summer)

Covers the use of instruments, lettering practice; geometric construction; multiview projection and conventions, auxiliary views, section views, axonometric and oblique projections, rotation, patterns and development, and methods of reproduction.

Prerequisite(s): ETD 1102 or equivalent: prerequisite only applies to Architectural Drafting and Design students.

EGN 1130C - Descriptive Geometry

3 Credit Hours
(Fall, Spring, Summer)

Covers basic principles of orthographic projection, auxiliary views and rotation as they apply to points, lines and planes in space; addition of coplanar and non-coplanar vectors; intersections and developments; and selected abstract, axonometric and oblique projection, and practical problems.

Prerequisite(s): EGN 1111C or equivalent.

EME 2040 - Introduction to Technology for Educators

3 Credit Hours
(Fall, Spring Summer)

This course will develop competencies necessary to integrate technology into classroom instruction. Students will survey a variety of instructional technology materials, software, and systems, as well as learn to use these in the classroom environment. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

EME 3410C - Integrating Technology in the Classroom

3 Credit Hours
(Fall, Spring)

In this course students will learn how to design a technology-rich classroom while contemplating the changing role of the teacher as a mentor/guide and student as a self-directed learner. Students will explore models of technology integration, classroom management, and administrative tasks that can be performed more efficiently using technology and learn strategies to select software and deal with legal and ethical issues when planning for technology integration. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3343 and EDG 3410C

EMS 0119 - Emergency Medical Technician for Firefighters

140 Clock Hours
(Fall, Spring, Summer)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-

Basic. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director

Corequisite(s): FFP 0010, FFP 0020, EMS 0119L

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 0119L - Emergency Medical Technician Lab for Firefighters

160 Clock Hours
(Fall, Spring, Summer)

This course provides an integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director.

Corequisite(s): FFP 0010, FFP 0020, EMS 0119

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1335 - Emergency Vehicle Operators Course

1 Credit Hour
(Offered as needed)

Students receive basic education and information on the safe and effective operation of emergency vehicles.

Prerequisite(s): permission of the EMS Program Director.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

5 Credit Hours
(Spring)

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent

with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

**2 Credit Hours
(Spring)**

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

**1 Credit Hour
(Offered as needed)**

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2350 - Unmanned Vehicles Applications and Operations for EMS

**3 Credit Hours
(Summer)**

This course examines the response of Emergency Medical Services to unsecure scenes with the aid of unmanned vehicles. Students will explore EMS protocols for the utilization of unmanned vehicles in catastrophic events with mass casualties requiring triage and multiple agency responses. Participants will be introduced to the concepts of the utilization of unmanned vehicles for support during large scale public events such as; conventions, festivals, athletic events, protest, and special team support.

EMS 2425L - Paramedic Externship

**4 Credit Hours
(Spring)**

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

5 Credit Hours

(Fall)

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

5 Credit Hours

(Spring)

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

2 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

1 Credit Hour

(Offered as needed)

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for

visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour
(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour
(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour
(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

EMS 2940 - Internship: Emergency Medical Services

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if

applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

ENC 0017 - Integrated Reading and Writing I

4 Credit Hours (Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a thorough review of English grammar and conventions and practice in writing paragraphs and essays while building skills in vocabulary and academic reading comprehension. Students must pass the class with a "C" or better grade.

Prerequisite(s): Appropriate score on PERT or other approved assessment.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 0027 - Integrated Reading and Writing II

4 Credit Hours (Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a review of English grammar and convention and practice in writing persuasive essays while building skills in vocabulary and academic reading comprehension. Student must pass the class with a "C" or better grade.

Prerequisite(s): Minimum grade of "C" in ENC 0017 or appropriate PERT or other approved assessment score.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 0056 - Developmental Writing Module

2 College Prep Credits (Offered as Needed)

This course is designed to develop written language skills for students whose entry placement scores do not meet requirements for degree credit courses (not applicable for degree completion). Conducted in a lab setting, this course is self-paced course, designed to allow students to focus on their individual grammar, usage, and writing needs to prepare for successful entry into college credit English courses (not applicable for degree completion). This course may be taken in place of ENC 0027 if a student has a placement score of 98-102 on the PERT. Students may exit Developmental Writing Module by passing the coursework and by obtaining a passing score on the Departmental Exit Exam.

Prerequisite(s): Students must score 98-102 on the PERT or on an elective basis score 103 or higher on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1101L - English Composition I Lab

1 Credit Hour
(Fall, Spring, Summer)

An instructor directed writing workshop designed to improve student's opportunity for success in ENC1101. Students will strengthen writing and grammar skills necessary to master the topics and concepts covered in ENC1101. Areas of focus include, but are not limited to, the following: expository and argumentative writing; appropriate diction; conventions of Standard American English grammar, punctuation, sentence structure; conventions of MLA.

Prerequisite(s): ENC0025 and REA0017 or equivalent with a "C" or better grade, or a score of 100-116 on the PERT, or on an elective basis with a score of 103 or higher on the PERT.

Corequisite(s): ENC 1101

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENT 2931 - Selected Studies in Entrepreneurship

1 Credit Hour
(Spring)

In this course, topics of current interest are presented in group instruction.

ENV 4610 - Sustainable Logistics

3 Credit Hours
(Spring)

This course introduces students to current and future trends in logistics technology, policy and sustainability. Topics include, source sustainability, environmental impacts of existing and emerging technologies, and local environmental conditions and the global climate.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

ETD 1102 - Introduction to Technical Drawing

3 Credit Hours
(Spring, Summer, Fall)

A course in the fundamental principles of the graphic language (the language of industry) and is developed for

students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction.

ETD 1112 - Mechanical Drafting I

4 Credit Hours
(Offered as needed)

The second of a sequence of courses in drafting which includes basic use of instruments, freehand lettering, geometric construction, orthographic projection, sections and conventional revolutions, dimensioning, inking, mechanical lettering, methods of reproduction, and developing computer-aided drafting skills.

Prerequisite(s): ETD 1102 and ETD 1320C or equivalent

ETD 1217 - Fundamentals of Dimensioning and Tolerancing

4 Credit Hours
(Fall, Spring)

A course designed to help students develop the basic fundamentals of dimensioning and tolerancing. Topics include: dimensioning systems such as; metric, decimal, fractional-inch, foot and inch, tolerancing methods, limits and tolerances, tolerancing accumulation, dimensioning practices, and standards fits.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 1340C - AutoCAD II

3 Credit Hours
(Fall, Spring, Summer)

The second course in a series designed to develop skill and proficiency in the use of AutoCAD software to include: additional drawing commands, editing commands, modify commands, advanced display and inquiry commands, advanced dimensioning and annotation, advanced layering, block, attributes and X-Ref, paper space, UCS, data exchange and output files.

Prerequisite(s): ETD 1320C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1355C - AutoCAD 3-D Modeling I

3 Credit Hours
(Fall, Spring)

A basic course in mechanical design using basic computer geometry techniques. Topics will include: orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques.

Prerequisite(s): ETD 1340C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1801C - Technical Illustration

3 Credit Hours
(Fall)

The purpose of this course is to help students develop the skills, knowledge, and attitudes necessary to be job entry-level qualified as technical illustrators.

Prerequisite(s): ETD 1112 or EGN 1130C, and ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETD 2218 - Geometric Dimensioning and Tolerancing

4 Credit Hours
(Fall, Summer)

An introductory course in geometric dimensioning and tolerancing using the geometric method nationally accepted according to ASMEY 14.5M. Topics covered include: definition and terms, symbols, datum referencing, locational tolerancing, form tolerancing, profile tolerancing, orientation and runout tolerancing, and math for positional tolerancing.

Prerequisite(s): ETD 1217 or equivalent.

ETD 2350C - AutoCAD III

3 Credit Hours
(Fall, Spring, Summer)

An advanced course designed to help students develop proficiency in the area of computer aided drafting and systems drafting. Topics covered include: transfer drawings, digitized drawings, explanatory drawings, multiview projections, exploded assemblies, pictorial drawings, auxiliary views, sections, details, geometric dimensioning and tolerancing, and CADD concepts.

Prerequisite(s): ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2357C - Inventor I

3 Credit Hours
(Spring)

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2358C - Inventor II

3 Credit Hours
(Summer)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using Inventor Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2357C.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

3 Credit Hours
(Fall)

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2368C - SolidWorks II

3 Credit Hours
(Spring)

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using SolidWorks Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2364C or higher or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

3 Credit Hours
(Fall, Spring, Summer)

This course will develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

ETD 2377C - 3D Studio Max I

3 Credit Hours
(Offered as needed)

Course is designed to use 3D Studio in rendering, and animation as a dynamic visualization tool for AutoCAD design images. Upon completion of this course, the user will be able to navigate through the modules of the program, model simple projects, set up scenes for rendering and animation, assign materials to objects, and define simple motion paths, input and output techniques.

Prerequisite(s): ETD 1355C or equivalent.

ETD 2731 - Mechanical Drafting II

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary views, related mathematics, precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 1112 or equivalent.

ETD 2735 - Mechanical Drafting III

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include: isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary

views, related mathematics, and precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 2218 and ETD 2731 or equivalent.

ETD 2802C - Technical Illustration II

3 Credit Hours
(Spring)

The purpose of this course is to help students develop advanced skills, knowledge, and attitudes necessary as technical illustrators, to include oblique, and axiometric projections, perspective and exploded pictorial drawings, and related techniques.

Prerequisite(s): ETD 1340C or equivalent.

ETD 2905 - Independent Study – Drafting

1 Credit Hour
(Fall, Spring, Summer)

Practical treatment of special geometry, graphics, and design with emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing.

Prerequisite(s): EGN 1111C and ETD 1112 or permission of instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

* This course may be taken up to four times for credit.

ETG 1941 - Internship

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

ETI 2419C - Advanced Concepts of CNC Machines and CNC Machining Practices

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with advanced concepts in CNC machines and CNC machining to include: theory, operation, setup, safety, and practices.

Prerequisite(s): PMT 2261C or PMT 2262C

ETI 4205 - Applied Logistics

3 Credit Hours
(Offered as Needed)

Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/

systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

ETM 1315C - Hydraulics & Pneumatics Fundamentals

3 Credit Hours
(Spring)

This course introduces the student to basic hydraulic and pneumatic fundamentals. Instructional topics will include components, fluid pressure and flow and basic circuit design and application.

ETS 1511C - Motors and Controls

3 Credit Hours
(Fall, Spring)

This course explores the theory and application of AC and DC motors, types of single-phase motors, three-phase power, three-phase motors, remote and local control, forward and reversing motor starters, and various motor control circuits. Wiring and troubleshooting exercises of electric three-phase motor control circuits are emphasized in a wide range of applications.

Prerequisite(s): EET 1084C

ETS 1542C - Introduction to Programmable Logic Controllers

3 Credit Hours
(Fall)

This is an introductory course in Programmable Logic Controllers (PLCs.) The student will learn basic concepts with a focus on programming and practical applications.

Prerequisite(s): EET 1084C

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1940 - Internship, Environmental Science

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum grade of "B" in any college level science course and permission of instructor.

EVR 3949 - Extended Internship, Environmental Science

4 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum Grade of "B" in any college-level science course and permission of instructor.

FFP 0010 - Firefighting I

206 Clock Hours
(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification.

as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 0077 - First Responder for Public Safety Personnel

45 Clock Hours
(Fall, Spring, Summer)

This course trains public safety members who are the first to arrive at an emergency in providing efficient and accurate pre-hospital care. Students assess patients for wounds to determine if trauma, shock, burns or closed airways are a problem and how to address those issues by dressing wounds, stabilizing the person or administering oxygen. They immobilize patients and address common emergency medical issues with basic treatments. This course includes hands-on, practical experience and is necessary to be eligible for first responder certification.

This course is a co-requisite course for students entering the Firefighting Certificate program who do not have certification for first responder, EMT, or paramedic.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

FFP 1140 - First Responder for Public Safety Personnel

3 Credit Hours
(Offered as needed)

This course introduces the student to the skills and techniques used for first response to medical emergencies. Classroom instruction includes a variety of medical related topics encountered by public safety personnel. Practical exercises and scenarios are included to enhance classroom instruction and skill development.

FFP 1301 - Fire Service Hydraulics

3 Credit Hours
(Offered as needed)

Introduction to the study and characteristics of hydrostatics and hydrodynamics in the fire service; to include basic hydraulic measuring units, facts, theories, and formulas for problem solving. The course covers the relationship between flow and pressure and mathematical hydraulic formulas.

FFP 1505 - Fire Prevention Practices

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1540 - Private Fire Protection Systems

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1691 - Fundamentals of Firefighting & Unmanned Vehicles

3 Credit Hours
(Summer)

Course introduces the fundamentals of unmanned vehicle applications for firefighting with prioritization of manpower and equipment utilization. Fire officers explore the use of unmanned vehicles for fire ground commanders for tactical operations for all levels of fire. Emphasis for fire investigators on utilization of unmanned vehicles in the investigation process. Course introduces determination of fire cause and origin with collection of evidence by unmanned vehicles during fire scene investigation. Participants will explore the use unmanned vehicles for planning, responding, and evaluating HAZMAT incidents.

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1800 - Disaster Education for Individuals and the Community

3 Credit Hours
(Offered as needed)

This course provides a study of the design, development, and delivery of public disaster safety education and programs including: methods of identification of disaster safety programs, the selection of target programs and strategies of affect reduction, methods of designing and implementing information and educational programs, and methods of evaluating a program's impact. Studies include theoretical and practical skills training in individual, group, and mass media communications, instructional skills, planning priorities, and evaluation techniques.

FFP 1801 - Introduction to Emergency Management Administration

3 Credit Hours
(Offered as needed)

This course will discuss emergency management practices and how they relate to natural and man-made disasters. It is designed to help the student develop an understanding of overall emergency management principles, practices, and standards in the local, national, and international environments.

FFP 1810 - Firefighting Tactics and Strategy I

3 Credit Hours
(Fall, Spring, Summer)

This course is a study of the principles utilized on the fire ground for maximum manpower and equipment utilization; fire ground administration starting with a small fire on up through major conflagrations. Emphasis will be on developing thinking skills in relation to crises.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1826 - Incident Management

3 Credit Hours
(Offered as needed)

This course contrasts the major forms of Incident Management/Incident Command Systems. It illuminates these differences and offers a fresh perspective on the concepts on which these systems are founded in order to make them more accessible and user-friendly. It bridges the gap between their theoretical and academic foundations and their real-world applications, and makes them more applicable to the professional's daily needs.

FFP 1881 - Emergency Management Leadership

3 Credit Hours
(Offered as needed)

This course provides the student with the knowledge and skills necessary for effective interpersonal relationships, including conflict management and the use of power and influence as they apply to emergency administration and leadership. It addresses the budget process and related administrative duties of an emergency management program manager.

FFP 1890 - Emergency Management Principles for Tourism and Hospitality Industry

3 Credit Hours
(Offered as needed)

This course analyzes emergency management functions and responsibilities within the tourism and hospitality industry. Particular emphasis is placed in the areas of administration, organization, communications, and human relations. Students will learn how historical mistakes can influence human response to disaster situations, and some of the current legal and human challenges posed when dealing with disasters.

FFP 2120 - Fire Service Building Construction

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for

trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2692 - Unmanned Vehicles Applications and Search & Rescue

3 Credit Hours
(Fall)

This course examines the utilization of unmanned vehicles by public safety in various search and rescue operations. Students will be introduced to the utilization of unmanned vehicles during searches for suspects eluding capture. Course will examine the response protocol and interagency support utilizing unmanned vehicles in urban, water, and various terrain search and rescue operations. Students will be introduced to the operations of unmanned vehicles for silver and amber alerts.

FFP 2720 - Company Officer

3 Credit Hours
(Fall, Spring, Summer)

Designed to assist fire officers in solving the varied problems and situations they will be required to manage effectively in today's ever changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation, and small group dynamics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2780 - Fire Department Administration

3 Credit Hours
(Fall, Spring, Summer)

The course is designed to present the principles of management theory, and its application in the fire service. The course is intended for officers whose area of responsibility encompasses long and short range planning, budgeting and administration.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2820 - Emergency Preparedness

3 Credit Hours
(Offered as needed)

This course teaches all aspects of emergency preparedness and planning related to natural and man-made disasters, and basic principles of emergency management. Planning concepts and the planning process will be discussed.

FFP 2823 - Technical Applications in Emergency Management

3 Credit Hours
(Offered as needed)

This course explores issues and problems associated with the use of technology in emergency management. It examines strategies to overcome these issues and problems. Some of the subjects treated are use of the Internet, spatial analysis applications in vulnerability analysis, decision support systems, and emerging technologies.

FFP 2834 - Societal Issues in Disaster Management

3 Credit Hours
(Offered as needed)

This course examines human response to disaster events, including political and economic factors influencing vulnerability. It examines how individuals and institutions make decisions at all levels of disaster response, it is an introduction to current research pertaining to the sociological aspects of disaster, and it will provide increased awareness of the potential and difficulties in using social science research as a basis for modifying public policy.

FFP 2841 - Contingency Planning for the Private Sector

3 Credit Hours
(Offered as needed)

This course is designed to assist students in developing effective public sector plans by using the National Incident Management System and the Incident Command System templates. The curriculum includes case studies and development procedures for private sector logistics management and employee support planning.

FIN 4402 - Financial and Economic Management

3 Credit Hours
(Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and

opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

FRE 1121 - French II

4 Credit Hours
(Spring)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): FRE 1120 or an equivalent course with a grade of "C" or better.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

FSS 1001 - Culinary Techniques

3 Credit Hours
(Spring)

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

3 Credit Hours
(Spring)

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

3 Credit Hours (Fall)

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

3 Credit Hours (Fall)

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

3 Credit Hours (Summer)

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 1250 - Dining Room Management

3 Credit Hours (Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2100 - Food Plans and Menu Preparation

3 Credit Hours (Spring)

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2240L - Classical Cuisine

3 Credit Hours (Fall)

Students prepare and learn the skills and management theories involved in classical dishes. Concentration is on the basics of classical cuisine, such as stocks, soups, and sauces. Attention is given to the management tasks of portion control, costing and presentation. Special emphasis is given to classics such as emulsion sauces, thickening agents, and sauces derived from the Mother sauces. Student must successfully pass written and practical examination covering a variety of techniques and procedures.

Prerequisite(s): FSS 1221L

FSS 2242L - International and Regional Cuisine

3 Credit Hours (Spring)

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

3 Credit Hours (Summer)

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

3 Credit Hours (Spring)

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

FSS 2500 - Food and Beverage Cost Control

3 Credit Hours
(Fall)

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2941 - Culinary Internship

2 Credit hours
(Fall, Spring, Summer)

This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): FOS 2201, FSS 1202L, FSS 1221L

FSS 2942 - Culinary Internship

3 Credit Hours
(Spring)

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L, HFT 1000, and FSS 1221L with a grade of "D" or better.

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1214 - Business and Supervision Terminology

2 Credit Hours
(Fall)

This course is designed for students to achieve mastery of the special vocabulary, jargon, and concept terminology associated with general business and supervision in the modern workplace. Students will apply the terms in common workplace scenarios and hypothetical situations, as well as in standard written documents and assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 1942 - Internship Business

1 Credit Hour
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

GEB 2430 - Business Ethics

3 Credit Hours
(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2947 - Academic Learning Field Studies I

1 Credit Hour
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2948 - Academic Learning Field Studies II

2 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2949 - Academic Learning Field Studies III

3 Credit Hours
(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours
(Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

3 Credit Hours (Fall)

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

3 Credit Hours (Fall)

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3930 - Business Project and Acquisitions Terms and Concepts

1 Credit Hour (Fall)

Students will apply specialized terminology of project and acquisitions management in various communication venues including short written documents and summary analyses. Emphasis will be placed upon the latest terms, abbreviations and jargon applicable to the field. Students will research selected terms and concepts in various contemporary periodicals and publications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3933 - Business Research

**1 Credit Hour
(Fall)**

This seminar-style course, offered in group or individual format, provides an introduction to various references, databases, periodicals, journals and other publications essential to the research of contemporary business issues; also included are methods of accessing resources via the Internet, designing search strategies, citing Internet resources and evaluating research materials.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4454 - Business in a High Technology Environment

**3 Credit Hours
(Spring)**

Presents the special challenges and opportunities of managing a high technology firm or a traditional entity operating in the high technology environment; addresses software/information security, recruiting technical personnel, outsourcing, equipment security, updating equipment, telecommuting and similar issues.

Prerequisite(s): upper division standing and GEB 3031 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4930 - Special Topics: Project Management

**3 Credit Hours
(Offered as needed)**

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4933 - Special Topics: Management

**3 Credit Hours
(Offered as needed)**

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4934 - Special Topics: Business Administration

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) from the area of business administration in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4941 - Internship: Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 1040C - Introduction to Geographic Information Systems

3 Credit Hours
(Offered as Needed)

This course will provide students with an introduction to Geographic Information Systems (GIS). Lectures will include: What is GIS, GIS applications, fundamentals such as map projections, vector versus raster data models, creating and maintaining geographic databases, spatial analysis and modeling, cartography and map production. Lab Sessions will include the hands on use of the ArcGIS software. Students will receive a 180-day version of the software with their textbook that they can use at home to complete assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 2401 - GIS Applications in Social Science

3 Credit Hours
(Offered as Needed)

This course surveys the use of GIS for solving spatial problems in the social sciences. Examples from the fields of health, economic geography and real estate, housing, transportation, criminology, among others are used to illustrate how spatial techniques are used to address problems in a GIS environment. Special consideration will be given to the data needs of such operations, the implementation of methods in a GIS environment, and understanding the spatial assumptions and issues that underpin analyses.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GLY 2010C - Principles of Geology I

4 Credit Hours
(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

GLY 2601C - Introduction to Paleontology

4 Credit Hours
(Fall or Spring)

This course is a survey of prehistoric life. Topics include fossilization, systematics, evolution, ecology, extinction, and the geological history of life. Laboratory work covers the anatomy, classification, and ecology of major phyla of both extinct and extant organisms, including monerans, protists, plant, macroinvertebrates, and vertebrate animals. The course involves local and regional fossil collecting trips.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2140C - Multimedia I

4 Credit Hours
(Fall, Spring, Summer)

An advanced course covering the development of multimedia projects incorporating a variety of digital media elements. Students will learn an industry standard digital video editing application and the aesthetic and technical considerations involved in content acquisition. Access to a miniDV camcorder suggested.

Prerequisite(s): ART 2602C, GRA 1151C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2141C - Multimedia II

4 Credit Hours
(Offered as needed)

An advanced course covering principles of design and information architecture surrounding interactive multimedia presentations. Students will learn an industry standard interactive DVD media authoring software application. Students will produce a finished interactive DVD.

Prerequisite(s): GRA 2140C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 2191C - Graphic Design II

3 Credit Hours
(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2900 - Independent Study – Graphic Art

1 Credit Hour
(Offered as needed)

This course covers the practical treatment of Graphics/Printing Technology. Emphasis is on individual work projects.

Prerequisite(s): GRA 1151C or PGY 1801C

GRA 2905 - Independent Study – Graphic Design

1 Credit Hour
(Offered as needed)

The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

Prerequisite(s): GRA 1151C or PGY 1801C

▲ Technology-Across-the-Curriculum Course.

GRA 2950C - Advanced Graphic Projects

4 Credit Hours
(Offered as needed)

An advanced Graphic Design course addressing common Graphic Design problems. Students will explore advanced software application functionality and creative, aesthetic, and portfolio development. Access to a high quality digital camera required.

Prerequisite(s): ART 2602C, ART 2603C, GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2600 - Hospitality Law

3 Credit Hours
(Offered as needed)

Nature and function of our legal system as it applies to the operation of an INN. Innkeeper-guest relationship, contracts, torts, civil rights and insurable risks are emphasized.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2940 - Hospitality Internship

1 Credit Hour
(Offered Fall, Spring, Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2941 - Hospitality Internship

2 Credit Hours
(Offered Fall, Spring, Summer)

This course consists of on-the-job experience supplied by the hotel-motel-resort- restaurant industries. Job placement will be dependent upon the availability of participating hospitality institutions. The course consists of 60 hours per semester of on-the-job instruction accompanied by a seminar class.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2942 - Hospitality Internship

3 Credit Hours
(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours
(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours
(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1432 - Pathopharmacology

3 Credit Hours
(Fall)

Introduction to the nature, cause, and treatment of disease entities and the body's defense mechanisms. Commonly used drugs will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1442 - Pharmacology for HIM Professionals

2 Credit Hours
(Offered as needed)

Pharmacology for HIM Professionals provides an overview of the pronunciation, spelling, actions and side effects of the most commonly prescribed medications. The course will examine pharmacological terms, abbreviations, and symbols used by healthcare providers to write prescriptions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2253 - CPT Coding - Part 1

3 Credit Hours
(Spring)

Instruction and practice in basic CPT coding conventions, principles of classifying physician services using current procedural terminology (CPT-4), APC, and auditing procedures. Ethical standards of practice will be analyzed.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

(Previously listed as HIM1253)

HIM 2272 - Healthcare Reimbursement

3 Credit Hours (Summer)

Emphasis on billing regulations for the State of Florida. Course content includes LMRPS, Workers' Compensation laws, Florida Medicare, and claims for automobile accident injuries.

Prerequisite(s): HIM 2253 and HIM 2724 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2291 - CPT Coding Part 2

3 Credit Hours (Spring)

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, inpatient and outpatient prospective payment systems, encoding software and RBRVs.

Prerequisite(s): HIM 2253 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2724 - ICD Coding Part 1

3 Credit Hours (Fall)

This course provides a foundation using ICD-10-CM/PCS coding conventions, rules, methodology and sequencing, data sets, documentation requirements, and coding resources.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

HIM 2729 - ICD Coding Part 2

3 Credit Hours (Fall)

This course focuses on assigning appropriate ICD, DRG, and Level II (HCPCS) codes to a wide range of original source medical documents. This course increases the quality of code selection by applying the decision process in problem solving using well-defined medical record review methods and

guidelines. Ethical practices will be discussed.

Prerequisite(s): HIM 2724 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2815C - Professional Practice Experience

3 Credit Hours
(Summer)

Working in a simulated, online environment, students will endeavor to code and bill using nationally recognized, American Health Information Management Association (AHIMA) simulation software.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

HIM 2931C - Special Topics in Health Information Technology

1 Credit Hour
(Summer)

This course is a review of skills and work processes to support classification and coding to become nationally certified in-field. Effective test-taking strategies for certification exams and employability skills will be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

HLP 1081 - Wellness: Practice and Theory

3 Credit Hours
(Fall, Spring, Summer)

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HSA 1100 - Introduction to Health Care

3 Credit Hours
(Fall)

This course provides an overview of the United States Healthcare System, including the economic, social, political, and technological forces that shape the industry. The role of state and federal government and regulatory agencies in healthcare delivery is examined. The fundamental roles and responsibilities of healthcare team members are

surveyed. Healthcare safety, security, and infection control procedures will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3110 - Health Care Organization and Management

3 Credit Hours
(Spring, Summer)

This course focuses on the structure and management of health care organizations, and the fundamental issues facing the U.S. health care system. Key topics include health status, the organization of health services, manpower, public health, financing, facilities, utilization, quality, regulation, and national health policy.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3111 - Introduction to Health Care Management

3 Credit Hours
(Fall, Spring)

This course studies the administration, organization and delivery of health care in the United States. Topics to be examined include health care leadership, management, strategy, performance improvement, information technology, insurance, financial and human resources management, as well as ethical and legal concepts.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3113 - Contemporary Issues in Health Care

3 Credit Hours
(Spring)

This course is designed to introduce students to a range of issues related to health and health care in the United States. Course content will give students the opportunity to explore differing perspectives as they develop a deeper understanding of the issues and enhance their research and communication skills. The course will enable students to analyze and evaluate evidence regarding controversial issues. Students will develop and practice skills in formulating and writing well-informed, well-articulated arguments and reflections.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4191 - Health Information Systems

3 Credit Hours
(Fall)

This course focuses on the theories, concepts and principles of health information systems and development of critical thinking skills for use in practice/working in health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying evidence-based knowledge, will analyze the design and implementation of health care information systems.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4922 - Capstone: Health Care Management

3 Credit Hours
(Spring)

This course integrates the information, skills, and abilities provided throughout the Health Administration Program in a capstone project. Students complete a project that demonstrates excellence by applying the knowledge gained from the core courses and materials studied throughout the program. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1100 - Health Education

3 Credit Hours
(Spring)

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

3 Credit Hours
(Spring)

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and

theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1905A - Independent Study – Arts and Humanities

1 Credit Hour
(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): approval from department chair, a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

HUM 2250 - Humanities – A Contemporary Perspective

3 Credit Hours ❖ † ¶
(Fall, Spring, Summer)

This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2700 - Humanities – Foreign Study

3 Credit Hours ♦ ¶
(Offered as needed)

A variable humanities content course designed to allow students first-hand learning experiences outside the United States. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2920 - Humanities Colloquium

1 Credit Hour
(Fall, Spring, Summer)

Humanities Colloquium is a lab designed to introduce students to critical visual and listening skills to become an intelligent arts consumer. Initial lecture sessions are devoted to discussions of the elements of analysis of art works, music pieces, theater performances, and dance presentations. Students will be required to attend selected NWFSC Visual and Performance Arts presentations and to write a short critical review of each. Topics may vary.

Prerequisite(s): placement test may be required.

HUM 2930 - Humanities – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

HUS 4950 - Capstone: Human Resources Management

3 Credit Hours
(Spring)

This capstone will build upon and integrate the primary human resource management skills introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge in the field of human resources.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

ISC 1003 - Natural Disasters – Causes, Consequences, Human Response

3 Credit Hours
(Fall, Spring, Summer)

This interdisciplinary course investigates natural catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, hurricanes and floods. This class will use an environmental studies approach to examine how modern society exacerbates the damage caused by these natural phenomena and methods to mitigate human suffering. The student will gain an appreciation of humankind's relationship to the natural environment.

ISC 4145 - Environmental Systems

3 Credit Hours
(Offered as needed)

Environmental Systems will expose students to a broad overview of the structure and processes occurring on Earth. Students will gain a broad understanding of the interactions between the atmosphere, biosphere, lithosphere, and hydrosphere. Course topics will be related to current environmental issues and our local ecosystems. This course is focused on Earth System Science content with development of methods specific to teaching middle school science as a secondary objective.

Prerequisite(s): (1) any two-course laboratory sequence in the natural sciences (i.e., Principles of Biology I & II, Principles of Geology I & II, College Chemistry I & II, Physics I & II, College Physics I & II, Anatomy & Physiology I & II); (2) any GLY course; (3) and either CHM1020 (Chemical Science) or PHY1020 (Physical Science).

ISM 3220 - Network Technologies for Information Professionals

3 Credit Hours
(Fall)

This course is designed to give the student an understanding of the various networking technologies and their practical application in the management of a business. The course also covers the technical issues involved in designing and implementing an efficient network for voice, data, and information networks.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3232 - Software Essentials

3 Credit Hours
(Fall)

This course covers a broad range of software topics as they apply to software management and systems analysis and design. Topics include, but are not limited to programming, the systems development life cycle (SDLC), systems management, interface design and Internet technology.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3323 - Applications in Information Security

3 Credit Hours
(Spring)

This course helps develop the important security concepts relative to software application development and access control that provide the knowledge and skills necessary for the successful management of information security in an organization. Students will understand the environment where software is designed and developed as well as the critical role software plays in providing security to an organization's information systems. The course focuses on software development concepts that relate to security, and how access control methodologies fit into the entire enterprise architecture.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4011 - Information Systems Management

3 Credit Hours
(Spring)

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4480 - Electronic Commerce Systems and Strategies

3 Credit Hours
(Offered as needed)

This course is designed to familiarize the student with the management approach to defining and implementing e-commerce (EC) systems. The course addresses the digital economy, EC strategy and marketing, EC models (Business to Business, Business to Consumer, etc.) as well as EC architectures. The course will cover management and regulatory issues in EC such as internationalization, electronic payment methods, Internet fraud, mobile e-commerce, and current implementation technologies. Architectures and inter-dependence (i.e. integration) of systems will be covered.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4930 - Special Topics - Technology Management

3 Credit Hours
(Offered as needed)

This is an individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): Upper division standing and permission of instructor.

This course may be taken up to two times for credit.

ISS 1905 - Independent Study – Social Science

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the social sciences for which present course availability is limited.

This course may be taken up to four times for credit.

LAE 4343C - Writing Across the Curriculum

3 Credit Hours
(Offered as needed)

This course prepares pre-service teachers by developing an understanding of the foundations of writing through the use of writers workshops and instructional strategies necessary to provide adequate instruction to emergent, novice, and transitional writers. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

LEI 1544 - Outdoor Recreation Management

3 Credit Hours
(Fall, Spring)

This course examines the fundamental influences on outdoor recreation. The course also provides information on hazards, conservation considerations, and safety factors in planning and organizing outdoor recreations. Basic first aid, CPR, and AED training is incorporated as it pertains to outdoor recreation. Field trips may be assigned as warranted.

LIN 1670 - Writing and Grammar

3 Credit Hours
(Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2100 - World Literature: Antiquity through the Renaissance

3 Credit Hours ♦ ¶
(Offered Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from antiquity through the Renaissance, that reflect cultural and intellectual heritage. May be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet the Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2120 - World Literature: Renaissance through the Present

3 Credit Hours ♦ ¶

(Offered, Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from the Renaissance to the present, that reflect cultural and intellectual heritage. May be used as a humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: LIT 2100 is not a prerequisite for this course)

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦

(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

MAD 3107 - Applied Discrete Mathematics

3 Credit Hours
(Fall)

This course builds on the foundation established in Introduction to Discrete Mathematics with further exploration in logic, mathematical reasoning, and mathematical proof writing. Topics include logic, set theory, boolean algebra, combinatorics, and graph theory with applications.

Prerequisite(s): Completion of MAC 2312 with a grade of "C" or better or concurrent enrollment in MAC 2312.

MAE 3350C - Principles and Methods for Teaching Mathematics K-8

3 Credit Hours
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in grades K-8. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4312C - How Children Learn Math

3 Credit Hours

(Offered as needed)

This course is designed to develop the skills and concepts necessary to deliver the mathematics curriculum effectively in the classroom. The content strongly reflects the curriculum emphases of the National Council of Teacher of Mathematics, and topics are presented using a process-oriented approach. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4930C - Professional Math Educator

1 Credit Hour

(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in mathematics, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4940C - Teaching Methods in Middle Grades Math Field Experience

1 Credit Hour

(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4945 - Internship - Middle Grades Math

9 Credit Hours

(Offered as needed)

Supervised teaching of Middle Grades Math in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430 , EDG 3410C, EDG 3343, EEX 3070, EME 3410C, MAC 2312, MAD 3107, MAE 3350C , MAE 4312C, MAE 4940C , MHF 4404, MTG 2206, RED 3324C, RED 3335C, STA 2023, and TSL 3081C

MAN 2021 - Management

3 Credit Hours

(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours

(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3052 - Management Philosophy and Practice

3 Credit Hours

(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3120 - Leadership and Group Dynamics

3 Credit Hours

(Spring)

An applied leadership course with a focus on case studies, projects and group interaction; includes theoretical background on group dynamics, small group behavior and motivation, power, types of groups, verbal and non-verbal communication skills and team-building. Emphasis will be placed on sociological and psychological dimensions of inter-group relations, including analysis and problem-solving through simulations, cases and similar activities which reflect a general business perspective, as well as leadership and group dynamics across a variety of business

units/functions.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and MAN 3052, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours
(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3310 - Issues in Human Resource Management

3 Credit Hours
(Fall, Spring)

Introduces the full range of human resource management functional areas, including recruiting and hiring staff, performance evaluations, employment regulations, discipline and termination, downsizing, compensation and benefits, job analysis, the organized labor setting, equity/diversity issues, and policy design. Approach will focus on current issues and applications.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3320 - Employee Staffing and Benefits

3 Credit Hours
(Fall)

An intermediate level course in employment staffing issues focusing on staffing patterns, organizational structures, job analysis and design, staffing efficiencies, employee assistance programs, staff projection models, and employee services.

Prerequisite(s): upper division standing and MAN 3310 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3350 - Training and Development

3 Credit Hours
(Fall, Summer)

Covers various staff training and development models, effective workshop techniques, designing and implementing company-wide training and development programs. Assessment of training needs, training and development as a benefit and setting development goals; students will design and conduct at least one workshop/training session for fellow students.

Prerequisite(s): upper division standing and GEB 3213 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3505 - Production Operations and Logistics Management

3 Credit Hours
(Spring)

This course examines the integration of production operations and logistics management and how this enables an organization to compete successfully in business. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, and inventory management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3574 - Acquisition Management

3 Credit Hours
(Spring)

Students will be exposed to the fundamentals of government acquisitions. This course provides conceptual material on government acquisitions, to include program planning, execution, and control. Students will be introduced to the elements of program risk and learn risk management techniques. The systems engineering process will be emphasized to include work breakdown structures, cost -- benefit analysis, and scheduling.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

3 Credit Hours
(Spring)

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3593 - Logistics and Supply Chain Management

3 Credit Hours
(Fall)

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure.

Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3610 - Global Logistics Management

3 Credit Hours
(Offered as Needed)

Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the multinational enterprise and management problems associated with operations in diverse systems are analyzed.

Prerequisite(s): Upper division standing and MAN 3593 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3786 - Sustainable Enterprise Planning

3 Credit Hours
(Offered as Needed)

This course introduces students to assessment tools, design and construction considerations, and operating planning requirements for sustainable enterprises. Students will learn about the ecological and economic benefits of sustainability/green practices. Additionally, they will learn how product, process, and service decisions affect sustainable enterprise concepts. Today's enterprises focus on social and environmental challenges, marketing, supply chain decisions, recycling, reusing, reconditioning, and other product and service decisions in order to realize a competitive advantage. This course will focus on best practices, case studies, evolving trends, and experimental efforts regarding sustainable/green systems.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3903 - Operations Research

3 Credit Hours
(Fall)

Operations Research is a science of modeling and optimization. It allows to model real-world problems by using mathematics, statistics and computers. It provides us the tools and theories to solve real-world problems by finding the optimal solutions to models subject to constraints of time, labor, resource, materials and business rules. With Operations Research, people make intelligent decisions to develop and manage their processes and businesses.

Prerequisite(s): Upper division standing is required. STA 2023, MAC 1140, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4162 - Customer Relations for Managers

**3 Credit Hours
(Spring)**

This course focuses on relationship building for all customers of an organization. The impact of culture and diversity on business relationships, successful negotiation strategies, and promotion of the organization through media relations are discussed. Emphasis is placed on the manager's role in improving customer relationships by creating a customer-focused, organizational climate.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4401 - Labor Relations

**3 Credit Hours
(Offered as needed)**

This course explores the impact of employee organizations on labor relations, current problems, conflicts and trends and includes the development of managerial approaches to achieve labor management cooperation.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4520 - Quality Management

**3 Credit Hours
(Spring)**

This course examines the significance of quality as a primary competitive strategy for tomorrow's successful business organizations. The impact of quality focus on increasing customer satisfaction is changing the manner in which business organizations function. Students will recognize that quality focused business organizations are evolving into very different environments in which to work and manage. This quality imperative is relevant for both industrial and service sector organizations. Students will be exposed to the critical issues of total quality management through reading, case studies, class discussion, field trips and outside speakers. The students are expected to gain insight and understanding regarding the meaning of quality, how organizations develop a quality focus, and the continuous nature of quality management. This course is appropriate for students who have an interest in: (1) managing the total quality program in a business organization, and/or (2) working for a business organization which already made a strong commitment to total quality management.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4555 - Quality Certification: ISO 9000

**3 Credit Hours
(Fall)**

A comprehensive study of internationally uniform quality standards (ISO 9000 and the steps to individual and organizational certification; includes management responsibility, quality system documentation, contract review, design control, process control, inspection and testing, corrective actions and other certification topics.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4570 - Purchasing and Materials Management

3 Credit Hours
(Fall)

The management of purchasing and the materials for production processes. Cost/price analysis, computer systems, forecasting, materials requirements, negotiations, and contracting are included.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4594 - Reverse Logistics

3 Credit Hours
(Offered as Needed)

In this course forward-moving logistics is compared to reverse-moving logistics. Both goods and information are discussed. Topics include federal and state regulations, waste management, recycled materials, technology, financial controls, stakeholders, and performance measurement.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4595 - Logistics Technology

3 Credit Hours
(Offered as Needed)

This course provides an overview of the use of technology (bar codes, gps, and radio frequency identification tags) in logistics to control recalls, returns, recycling, and waste management. Management functions, data synchronization, and interrelationships between different technologies to capture data regarding products moving in a logistics system are also discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours
(Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4930 - Capstone: Acquisition Management

3 Credit Hours
(Spring)

In this seminar, students will have the opportunity to participate in hands-on projects applying the techniques in MAN

3574 - Acquisition Management. Emphasis will be on government acquisition management. Students will create a work-breakdown structure, a project schedule, and perform a cost-benefit analysis of alternatives. Earned value management will be introduced as a method of program control. Students will also identify potential risk areas and suggest mitigation plans.

Prerequisite(s): Senior standing and completion of program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours
(Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4932 - Contract Negotiations Seminar

3 Credit Hours
(Offered as needed)

This seminar will refine the negotiation skills of the student through the use of readings, class discussions, case analyses, and practical exercises. Students will be introduced to goals, objectives, and strategies, as well as using appropriate tactics and methods to achieve them. The course will also help students understand the role of communication, power, and personality in the negotiation process and facilitate them assessing their personal abilities and traits as they relate to negotiation. While the course will focus on negotiation of defense-related contracts, the principles covered will apply to the entire range of interpersonal relationships.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4933 - Best-Value Source Selection Seminar

3 Credit Hours
(Offered as needed)

Focus is on the best-value source selection process. Students will walk through the acquisition cycle. Topics will include acquisition strategy, pre-solicitation activity, preparation for evaluation, initial proposal evaluation, discussions or negotiations, final proposal revision and recommendations and decisions.

Prerequisite(s): upper division standing and MAN 3574 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4934 - Logistics Management Seminar

3 Credit Hours
(Offered as needed)

A special topics course conducted in group or individual format; focus is on the terms, concepts and processes associated with logistics and distribution in the contemporary business environment.

Prerequisite(s): upper division standing and MAN 3583 or MAN 3574. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4940 - Capstone: Supervision

3 Credit Hours (Spring)

This capstone course will build upon and integrate the primary management skills and concepts introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge. This course will also cover basic entrepreneurial principles, which will be integrated throughout the student-led projects.

Prerequisite(s): Senior standing and completion of program core and emphasis business courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAP 2302 - Differential Equations

3 Credit Hours (Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAR 2011 - Introduction to Marketing

3 Credit Hours (Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours (Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAS 2103 - Linear Algebra

3 Credit Hours
(Offered as needed)

This is an introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. This course includes the study of matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors. Exercises using MATLAB will be required. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better, or equivalent.

MAT 0018 - Developmental Mathematics I

3 College Prep Credits
(Offered as needed)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). It is designed to reinforce the knowledge of operations and applications of fractions, decimals, percents, and signed numbers. An introduction to algebra will also be covered. Students must pass this class with a "C" or better to move on to MAT 0028.

Prerequisite(s): A score of 50-95 on the PERT.

Corequisite(s): SLS 1101.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0022 - Developmental Mathematics Combined

6 Credit Hours
(Fall, Spring, Summer)

A course designed to satisfy the requirements of both MAT0018 and MAT0028 in one semester and prepare students for MAT1033A. Topics to be studied include computations with decimals, percents, integers, operations with rational and polynomial expressions, linear equations and inequalities in one variable, factoring, and basic linear graphing. This course will teach the student to understand and communicate concepts of algebra in the language of mathematics, both orally and written. Due to the nature of this course, calculators are not permitted. A grade of "C" or better is required for successful completion of this course. College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

Prerequisite(s): score of 50-95 on the PERT

Prereq/Corequisites: SLS 1101

MAT 0028 - Developmental Mathematics II

4 College Prep Credits (Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). This course emphasizes concepts, techniques, and applications of the following topics: operations with real numbers, linear equations and inequalities in one variable, rational expressions, properties of exponents, polynomials, radical expressions, and graphs of lines.

Prerequisite(s): Grade of "C" or better in MAT 0018 or score of 96-113 on the PERT or on an elective basis a score of 114 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0056 - Developmental Mathematics Module

2 College Prep Credits (Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit. This course emphasizes concepts, techniques, and applications of the following topics: operations with real numbers, linear equations and inequalities in one variable, rational expressions; properties of exponents, polynomials, radical expressions, and graphs of lines. Student may exit Developmental Mathematics Module by passing the coursework and by obtaining a passing score on the Exit Exam.

Prerequisite(s): score of 105-109 on the PERT or elective basis score 110 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0157 - Modularized Developmental Mathematics II

4 College Prep Credits (Fall, Spring)

This course is designed to help students develop computational & algebra skills needed for success in college level mathematics. This course uses a modular format in a lecture/lab setting. Students will take a diagnostic test in class to identify skills that have not been mastered and to determine placement into the appropriate modules. Each student will have an individualized learning plan such that he or she works only on skills not yet mastered. Possible topics in the learning plan include operations on signed numbers, solving linear equations and inequalities in one variable, graphing linear equations, operations with exponents and polynomial expressions, factoring polynomials and solving quadratic equations, introduction to rational expressions, and operations with square roots. Students will use computerized instruction as well as guided instruction by the instructor. Successful completion of this course requires mastery of the material in each module and a passing score of the department final exam. Course cannot be used toward AA or AS degree.

Prerequisite(s): MAT 0018 with a grade of "C" or better or a score of 96-113 on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 1033A - Intermediate Algebra

4 Credit Hours (Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MAT 1033L - Intermediate Algebra Laboratory

1 Credit Hour
(Fall, Spring, Summer)

A hands-on lab designed to improve students' chance for success in the MAT1033A Intermediate Algebra course. Students will work to strengthen skills required to master the topics covered in Intermediate Algebra. The topics include, but are not limited to, factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions

Prerequisite(s): MAT 0028 or equivalent with a grade of "C" or better, or a score of 110-122 on the PERT, or on an elective basis with a score of 123 or higher on the PERT.

Corequisite(s): MAT 1033A

*Students scoring 110-113 on the PERT may enroll in MAT 1033A if they also enroll in MAT 1033L. Students should see an academic advisor.

MAT 2905 - Applied Teaching Techniques for Mathematics

4 Credit Hours
(Summer)

The goals of this course are: refinement or acquisition of mathematics skills and connections between mathematics topics needed for successfully tutoring in an academic setting; acquisition of general methods of tutoring as well as specific tutoring techniques needed for specific courses. Teacher-tutor seminars, teacher-tutor conferences, and formal instruction will supplement the extensive tutoring experiences. Prerequisite: Consent of the department. A minimum grade of "C" is required.

Prerequisite(s): Admission to the BS Middle Grades Math degree program

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

MET 1010C - Introduction to Meteorology

4 Credit Hours
(Fall, Spring, Summer)

Structure of the atmosphere; weather processes, systems and phenomena; climate and climatic change, economic impact of weather. May be used to satisfy the AA degree Physical Science requirement for career goals other than sciences, engineering and pre-professional fields.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):
Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 123 or higher on the math section of the PERT OR
(2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
(3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MHF 4404 - History of Mathematics

3 Credit Hours
(Offered as needed)

This course is for students pursuing an education degree with an emphasis in middle school and secondary mathematics. This course covers the evolution of mathematics from early number systems through modern

mathematics. If used to meet NWFSC Teacher Education program requirements, this course requires a grade of "C" or better.

Prerequisite(s): Completion of MAC 2311 with a grade of "C" or better or concurrent enrollment in MAC 2311.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1346 - Supervision II

3 Credit Hours
(Offered as needed)

The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socioeconomic climate and other information. Included are orientation, training, labor unions, safety, health and other related topics.

Prerequisite(s): MNA 1345 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2141 - Leadership Techniques

3 Credit Hours
(Offered as needed)

This interdisciplinary course addresses leadership in a group setting and focuses on leadership development through discussion, readings, group and individual projects and other applied activities.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3201 - Adaptive Team Leadership

3 Credit Hours
(Fall)

Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3202 - Leadership in Changing Environments

**3 Credit Hours
(Spring)**

Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, and apply principles and techniques of effective written and oral communication.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3203 - The Joint Environment

**3 Credit Hours
(Offered as Needed)**

Provides an introduction to the joint military environment. The course provides an overview of the development of national and regional policy through the national Security Council and national security system.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4301 - Developing Adaptive Leaders

**3 Credit Hours
(Fall)**

Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4302 - Leadership in a Complex World

**3 Credit Hours
(Spring)**

Capstone course to explore topics relevant to second lieutenants entering the army, describe legal aspects of decision making and leadership, analyze army organization from tactical to strategic level.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

**3 Credit Hours
(Fall)**

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

MTG 2206 - College Geometry

3 Credit Hours
(Spring)

This course emphasizes Euclidean geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve the following: line segments, angles, triangles, polygons, parallel and perpendicular lines, slopes of lines, circles, and similarity. Trigonometry is presented in terms of right triangle relationships. Logic is the basis for deductive reasoning in proofs of theorems. Lines and other geometric figures are graphed in the rectangular coordinate system. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 or equivalent with a "C" or better.

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFS's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUM 1620 - Audio and Acoustic Fundamentals

3 Credit Hours
(Fall, Spring, Summer)

Audio and Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening. The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio and recording equipment.

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

MUN 1000 - Summer Ensemble Workshop

3 Credit Hours
(Summer)

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances.

Prerequisite(s): experience in high school or a desire to learn.

MUN 1001 - Summer Ensemble Workshop II

**3 Credit Hours
(Summer)**

An ensemble workshop and performance to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop II will be expected to participate in several scheduled performances.

Prerequisite(s): MUN 1000.

MUN 1002 - Summer Ensemble Workshop III

**3 Credit Hours
(Summer)**

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances.

Prerequisite(s): MUN 1000, MUN 1001.

MUN 1140C - Wind Ensemble I

**1 Credit Hour
(Fall, Spring)**

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 1310 - Women's Ensemble

**1 Credit Hour
(Fall, Spring)**

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing NWFSC Chorus will be expected to participate in scheduled performances.

Prerequisite(s): Experience in high school choruses or choirs.

This course may be taken up to four times for credit.

MUN 1340A - NWFSC Show Choir I

**1 Credit Hour
(Fall, Spring)**

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): Audition, consent of department, music or performance minor.

This course may be taken up to four times for credit.

MUN 1360 - Madrigal Singers I

1 Credit Hour
(Offered Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day, such as vocal jazz, spirituals and contemporary choral works. This course is for the "first year" student.

Prerequisite(s): Audition based on vocal quality, musicianship and sight reading ability.

This course may be taken up to four times for credit.

MUN 1390 - Symphony Chorale I

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student. The Symphonic Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): audition or permission of instructor.

This course may be taken up to four times for credit.

MUN 1421 - Flute Ensemble

1 Credit Hour
(Fall, Spring)

The study and performance of flute ensemble and flute choir music in a musical group.

Prerequisite(s): audition or instructor recommendation only.

This course may be taken up to four times for credit.

MUN 1710A - Rock and Jazz Ensembles I

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his or her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to

designated organized ensemble.

Prerequisite(s): Some experience in high school bands, etc.

This course may be taken up to four times for credit.

MUN 1720A - Rock and Jazz Ensembles II

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his/her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble.

Prerequisite(s): experience in high school bands.

This course may be taken up to four times for credit.

MUN 2141C - Wind Ensemble II

1 Credit Hour
(Fall, Spring)

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 2311 - Women's Ensemble II

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing Women's Ensemble will be expected to participate in scheduled performances.

Prerequisite(s): MUN 1310

This course may be taken up to four times for credit.

MUN 2361 - Madrigal Singers II

1 Credit Hour
(Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day, such as vocal jazz, spirituals and contemporary choral works. This course is for the "second year" student.

Prerequisite(s): MUN 1360.

This course may be taken up to four times for credit.

MUN 2371 - NWFSC Show Choir II

1 Credit Hour

(Fall, Spring)

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): MUN 1340A.

This course may be taken up to four times for credit.

MUN 2392 - Symphony Chorale II

1 Credit Hour

(Fall, Spring)

A music organization open through auditions to any student. The Symphony Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): MUN 1390.

This course may be taken up to four times for credit.

MUS 1905A - Independent Study – Music

1 Credit Hour

(Offered as needed)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

MUS 1934 - Music - Special Topics

3

(Offered Fall, Spring)

A defined special topics which is pursued under supervision of a faculty member and recorded through usual departmental procedures. This course may be taken up to four (4) times for credit.

MUS 2930 - Music – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

*This course may be taken up to four times for credit.

MUT 1001 - Fundamentals of Music

3 Credit Hours
(Fall, Spring, Summer)

A pre-theory course for the music major, non-music major, or for the elementary education major.

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2116 - Music Theory III

3 Credit Hours
(Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours
(Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 2246 - Ear Training and Sight Singing III

**1 Credit Hour
(Fall)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

MVB 1201 - Applied Music Secondary – Brass I

**1 Credit Hour
(Fall, Spring)**

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

This course may be taken up to four times for credit.

MVB 2202 - Applied Music Secondary – Brass II

**1 Credit Hour
(Fall, Spring)**

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

Prerequisite(s): MVB 1201.

This course may be taken up to four times for credit.

MVK 1211 - Applied Music – Piano I

**1 Credit Hour
(Fall, Spring)**

Private instruction in piano, as secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVK 1311 - Applied Music - Piano I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in Piano in the freshman year of study as the student's principal performing medium. This one hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which three-four memorized selections from standard literature will be required.

Prerequisite(s): MVK 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVK 2221 - Applied Music – Piano II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in piano, as a secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

Prerequisite(s): MVK 1211.

This course may be taken up to four times for credit.

MVK 2321 - Applied Music - Piano II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in Piano in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which a memorized sonata movement and three-four memorized selections from standard literature will be required.

Prerequisite(s): MVK 1211, MVK 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVP 1201 - Applied Music Secondary – Percussion I

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-

hour private lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVP 2202 - Applied Music Secondary – Percussion II

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice.

Prerequisite(s): MVP 1201.

This course may be taken up to four times for credit.

MVS 1016 - Applied Strings – Guitar I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction on guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1017 - Applied Strings – Bass Guitar I

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1201 - Applied Music Secondary – Strings I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVS 2026 - Applied Strings – Guitar II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater

proficiency.

Prerequisite(s): MVS 1016.

This course may be taken up to four times for credit.

MVS 2027 - Applied Strings – Bass Guitar II

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

Prerequisite(s): MVS 1017.

This course may be taken up to four times for credit.

MVS 2202 - Applied Music Secondary – Strings II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVS 1201.

This course may be taken up to four times for credit.

MVV 1211 - Applied Music – Voice I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice.

This course may be taken up to four times for credit.

MVV 1311 - Applied Music - Voice I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in voice in the freshman year of study as the student's principal performing medium. This one hour weekly lesson is for intended voice majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which four memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVV 2221 - Applied Music – Voice II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice.

Prerequisite(s): MVV 1211.

This course may be taken up to four times for credit.

MVV 2322 - Applied Music - Voice II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in voice in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended voice majors, and requires Division Chair Approval. A major component of this class is a required juried performance at the end of the semester for which six memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211, MVV 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVW 1201 - Applied Music Secondary – Woodwinds I

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVW 2202 - Applied Music Secondary – Woodwinds II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVW 1201.

This course may be taken up to four times for credit.

NSP 3640 - Nursing Care of Military and Veteran Populations

3 Credit Hours
(Spring)

This course is designed to identify the unique healthcare needs of military and veteran populations in the United States in order to prepare students and practicing nurses to develop competence in designing nursing interventions within civilian and government agencies in which military members and veterans seek healthcare. In accordance with the ANA's pledge (2012) to raise awareness of the unique conditions and needs of military veterans and their families, this course supports the Joining Forces initiative to further nursing training to include specialized topics such as traumatic brain injury, posttraumatic stress disorder, trauma rehabilitation, and understanding the military and veteran's healthcare delivery system.

NSP 4275 - Introduction to Critical Care Nursing

3 Credit Hours
(Offered as Needed)

This course examines the needs of the critically ill client. As part of the human experience, the integrity of the individual and family may be disrupted by a critical illness. During such time, the critical care nurse assists the individual and family to restore life processes to a state of dynamic equilibrium. This course emphasizes the involvement through use of scientific rationale and application of the nursing process in providing care to the individual client and family. Critical care concepts and skills for promoting client and family well-being are stressed.

NUR 1021C - Nursing Process I

6 Credit Hours
(Fall, Spring)

This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psycho-social sciences in this first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to healthcare systems ethical-legal aspects of nursing practice, health and illness, communications, functional health patterns of clients, stress-adaptation, professional behaviors, and all steps of the nursing process with emphasis on assessment of older adult clients. Students begin socialization into the role of the Associate Degree Nurse as a member of an interdisciplinary healthcare team.

Prerequisite(s): Admission to the AS Nursing Program, BSC 1085C, ENC 1101, (MAC 1105 OR STA 2023)

Corequisite(s): NUR 1021L

Prereq/Corequisites: BSC 1086C, HUN 2201

Special Nursing Program policies may apply to this course.

NUR 1021L - Nursing Process I Clinical Experience

4 Credit Hours
(Fall, Spring)

This course introduces students to the role of the Associate Degree Nurse in providing direct, holistic nursing care to young, middle-aged and older adults who are hospitalized or in community settings. Students are introduced to all steps of the nursing process with a focus on assessment skills. Students will identify self-learning needs and set their own goals for improvement. Critical thinking and working effectively with peers and other healthcare professionals as a team member is expected. The demonstration of caring behaviors and therapeutic communication as a provider of bedside, technical nursing care is emphasized. Students must demonstrate safe performance of basic nursing skills,

including but not limited to medication administration, physical assessment, and comfort care.

Prerequisite(s): Admission to the AS Nursing Program

Corequisite(s): NUR 1021C.

Special Nursing Program policies may apply to this course.

NUR 1141 - Pharmacologic Principles in Nursing I

1 Credit Hour
(Fall, Spring)

This course introduces students to concepts and principles of pharmacology related to safe administration of therapeutic agents within the nursing process framework. Students begin to learn major drug classifications and selected exemplars along with principles of safe, effective administration of drugs. Students will learn dosage calculations, factors that affect the absorption, excretion, distribution, and metabolism of drugs, as well as drug actions, adverse effects, and interactions.

Prerequisite(s): Admission to the AS Nursing Program

Special Nursing Program policies may apply to this course.

NUR 1142 - Pharmacologic Principles in Nursing II

1 Credit Hour
(Fall, Spring)

An introduction to the role of the associate degree nurse in providing direct, holistic nursing care to young, middle-aged and elderly adults who are hospitalized or receiving care in community settings. Emphasis is on applying all steps of the nursing process with focus on assessment skills. Pre-requisite college foundation and nursing courses provide theoretical bases for nursing care. Critical thinking is an expected behavior along with skills in working ethically and effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care of hospitalized adults and nursing home residents.

Prerequisite(s): NUR 1141 or LPN licensure and admission to the Nursing Program

Corequisite(s): NUR 1231C and NUR 1750L

Special Nursing Program policies may apply to this course.

NUR 1231C - Nursing Process II

5 Credit Hours
(Fall, Spring)

Application of the nursing process continues with emphasis on the planning and implementation of nursing care for clients experiencing threats to functional health patterns. Development of professional behaviors, such as developing therapeutic relationships continues with students working clients through life interactions. Students further develop critical thinking skills through case studies and simulation scenarios designed to provide students with problem solving skills in analyzing, planning and prioritizing care for clients whose health problems are more acute or chronic;

the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief, and loss. Students learn basic management skills as a team member caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate.

Prerequisite(s): NUR 1021L NUR 1021C and NUR 1141;or LPN licensure; admission to the AS Nursing Program or permission from the program director

Corequisite(s): NUR 1750L and NUR 1142

Prereq/Corequisites: DEP 2004

Special Nursing Program policies may apply to this course.

NUR 1750L - Nursing Process II - Clinical Experience

4 Credit Hours (Fall, Spring)

This course builds on competencies presented in Nursing Process I regarding the role of the Associate Degree Nurse in providing direct, holistic nursing care for adult clients experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, and community settings provide students with opportunities to apply the nursing process in care of clients, including the older adult. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills.

Prerequisite(s): NUR 1021L or LPN licensure

Corequisite(s): NUR 1231C.

Special Nursing Program policies may apply to this course.

NUR 1940L - Nursing Clinical Externship

3 Credit Hours (Summer)

This elective course is designed to offer students the opportunity to gain additional clinical skills practice during the summer semester. Working with a preceptor and the nursing faculty in area hospitals, clinics, or community settings, the student will be able to perform all skills learned in successfully completed nursing courses.

Prerequisite(s): admission to the AS Nursing Program; NUR 1750L or NUR 1021L

Special Nursing Program policies may apply to this course.

NUR 2233C - Nursing Process III

6 Credit Hours (Fall, Spring)

Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including during the childbearing process and children whose normal lines of defense have been invaded by stressors to the degree that

hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development.

Prerequisite(s): NUR 1231C & NUR 1142 or approval from the program director.

Corequisite(s): NUR 2233L

Prereq/Corequisites: MCB 2010C

Special Nursing Program policies may apply to this course.

NUR 2233L - Nursing Process III – Clinical Experience

4 Credit Hours

(Fall, Spring)

Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for the hospitalized child, the family during the maternity cycle, and adults whose health problems are more complex and/or chronic. Clinical sites include hospitals, health departments, clinics, physician offices, schools and other community settings. Conflict resolution skills are applied, as needed, to meet client and/or peer learning goals. Delegation skills with peers are also practiced. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this clinical course.

Prerequisite(s): NUR 1750L

Corequisite(s): NUR 2233C.

Special Nursing Program policies may apply to this course.

NUR 2241C - Nursing Process IV

5 Credit Hours

(Fall, Spring)

Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical thinking skills in exploring case-based practice situations and work together in simulation seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development.

Prerequisite(s): Permission from the Director of Nursing or NUR 2233C; MAC 1105 or STA 2023

Corequisite(s): NUR 2241L, NUR 2811L

Prereq/Corequisites: SYG 2000

Special Nursing program policies may apply to this course.

NUR 2241L - Nursing Process IV – Clinical Experience

3 Credit Hours
(Fall, Spring)

Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their four-week clinical practicum prior to graduation from the program. Students will also shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Other clinical activities will include experiences in the emergency department and critical care units. Students must demonstrate competency in all behaviors required for an Associate Degree Nursing graduate.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2811L

Special Nursing Program policies may apply to this course.

NUR 2811L - Nursing Practicum

3 Credit Hours
(Fall, Spring)

This course is a capstone course and provides a time during the last four weeks of the nursing program in which students begin to transition from the student role into the graduate role as an associate degree nurse. Students attend seminar hours and complete standardized testing for evaluation in proficiency in applying all steps in the nursing process with emphasis on evaluating safe nursing care outcomes. Students complete clinical practice hours with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients. The focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry level. Clinical experiences provide hands-on learning opportunities, enhancing clinical thinking, safe nursing judgment, and clinical confidence in skills. Clinical experiences take place in a variety of clinical settings and work schedules.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2241L

Special Nursing Program policies may apply to this course.

NUR 3067C - Health Assessment

3 Credit Hours
(Fall, Summer)

This course is designed to develop the student's knowledge for obtaining and recording a systematic, comprehensive health history, psychosocial assessment, and physical examination of the adult. The course involves the synthesis of nursing, biologic, psychologic, and sociocultural knowledge and theories as they apply to the findings obtained in the comprehensive health assessment of clients of various ages. During the fieldwork experience, emphasis will be placed on collection of a database through physical assessment, history taking and interviewing.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3071 - Writing for Success in Nursing

1 Credit Hour
(Fall, Spring, Summer)

This course is designed to develop the student's knowledge for writing at the upper division nursing level. The course includes information regarding use of APA format and scholarly writing resources.

Prerequisite(s): Student must be a Registered Nurse to take this course.

NUR 3080 - Dimensions of Baccalaureate Nursing Practice

3 Credit Hours
(Fall, Summer)

This course will provide Registered Nurses, who are returning to school to earn a Baccalaureate degree, an opportunity to advance professional practice concepts. As designed, the course engages the student intellectually in an ongoing professional dialogue and journey with peers, colleagues, and instructors that serves to broaden the student's professional development and builds on preexisting knowledge and experiences. The course curriculum is written for adult learners with the characteristics of self-direction, prior experience, applicability to practice, and motivation to meet the challenge to expand their knowledge base and to utilize advanced critical thinking skills.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3678 - Nursing Care of Vulnerable Populations

3 Credit Hours
(Offered as needed)

Caring for the vulnerable members of society is a function nurses perform without regard for their own ambitions, personal safety, and financial security. This course is designed to pull together material from different cultures and at risk groups of individuals considered vulnerable populations. Key concepts will be discussed that will provide a basic structure for caring for the vulnerable, the relevance of nursing theories to vulnerable populations, nursing research showing the kinds of phenomena nurses study, and many ideas about learning to work with and advocate for vulnerable individuals.

NUR 3826 - Nursing Ethics

3 Credit Hours
(Offered as needed)

This course provides an in-depth exploration of ethical principles and moral reasoning as the foundation of nursing practice. The ANA Code of Ethics will be used as a framework for examining current issues in healthcare delivery across the age span from reproductive issues to end-of-life care.

Prerequisite(s): Must be an RN or ASN student.

NUR 3837 - Health Care Issues

2 Credit Hours
(Fall, Spring)

This course provides a forum for the exploration and evaluation of concerns germane to contemporary nursing. The focus of this course is on the nursing profession and current major issues and problems that concern it. Social forces

influencing changes in the nursing profession are analyzed in terms of historical antecedents and their current manifestations. Recently passed, and pending legislature at both the national and state levels is emphasized.

Prerequisite(s): Current RN Licensure.

NUR 3955 - Portfolio I

1 Credit Hour
(Fall, Summer)

This course will provide RN to BSN students an opportunity to develop an electronic professional portfolio to express one's professional nursing expertise and proficiency.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 4125 - Clinical Pathophysiology

3 Credit Hours
(Fall, Spring)

This course examines in detail the underlying process involved in the development, evolution, manifestations, and complications of common clinical diseases across the life span, and compares normal and abnormal states. The biological bases for therapeutic clinical actions are examined.

Prerequisite(s): NUR 3067C

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research

3 Credit Hours
(Fall, Spring)

This course is designed to provide the RN to BSN student with an introduction to the research process and evidence based practice. The purpose of the course is to stimulate interest in nursing research; to enable students to understand and judge the usefulness of scientific findings; and to develop an understanding of how clinical proficiency is combined with experimental proof to produce nursing practices based upon evidence. An on-line teaching method is used with optional workshops available to students.

Prerequisite(s): STA 2023.

NUR 4615C - Family and Community Health

5 Credit Hours
(Fall, Spring)

The Family and Community Health Nursing course is designed to facilitate the conceptualizing of family, population groups, and community as units of care from diverse cultures, ethnic, and social backgrounds. The student is provided a fieldwork opportunity to assess the health needs of selected families and groups in the community setting with selected health promotion, risk reduction, and disease prevention. The nursing process is used to examine multiple influences impacting life-course experiences of families and communities to enhance functioning.

Prerequisite(s): NUR 3067C, NUR 3080, admission to the BSN program and completion of all General Education requirements.

NUR 4827C - Nursing Leadership and Management

5 Credit Hours
(Spring, Summer)

This course provides students with an evidence-based study of leadership, collaboration, and coordination in healthcare settings. Students develop an evidence based paper to deal with key leadership and management issues related to professional goals. Nursing leadership and management fieldwork focuses on the roles and functions of the professional nurse in these roles. Issues associated with healthcare delivery are explored. Fieldwork provides an opportunity to plan, implement and evaluate a change in the practice of nursing.

Prerequisite(s): NUR 3080, NUR 4165, NUR 3067C, NUR 4615C.

NUR 4956 - Portfolio II

1 Credit Hour
(Spring, Summer)

This course will provide students an opportunity to complete and evaluate their electronic professional portfolio to express their professional nursing expertise and proficiency.

Prerequisite(s): NUR 3955, NUR 3080; Pre or Corequisite: NUR 4827C.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

OCE 1013C - Aquatic Environmental Science

4 Credit Hours
(Offered as needed)

This course will investigate living and non-living components of aquatic ecosystems. Students will learn how aquatic ecosystems function naturally as well as how human activity can alter these ecosystems. The course is built around field trip(s) and lab work during which students will obtain water quality data from a local aquatic environment. Through field trip(s) and lab work, students will gain appreciation for the local relevance of course material. For both majors and non-majors, a key outcome of such experiences will be gaining experience in using inquiry and reasoning through the scientific method and becoming comfortable with data, technology, and instrumentation. Problem-solving, interpretation of data, and class discussions will be key.

OST 1107 - Word Processing I

3 Credit Hours
(Fall)

Integration of basic keyboarding and word processing – learning the keyboard, creating, editing, saving, and other

word processing functions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

OST 1355 - Records Management

3 Credit Hours
(Fall)

Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2117 - Word Processing II

3 Credit Hours
(Spring)

Continuation of Typing and Word Processing I – develop keyboarding and document processing using a microcomputer.

Prerequisite(s): OST 1107 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2401 - General Office Management

3 Credit Hours
(Spring)

Study of practices and procedures in the modern office. Emphasis on exercising judgment, handling incoming calls and callers, processing mail, word processing systems, editing and composing techniques, travel arrangements, banking procedures, employment applications and resumes.

Prerequisite(s): OST 2117 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PAD 3003 - Public Service Operations

3 Credit Hours

(Offered as Needed)

An introduction to public administration and policy in America. This course is designed to provide undergraduate students a basic understanding and appreciation of the administration of the public sector. It is intended to provide an overview of public administration for students interested in public service and for students, who as good citizens, want an appreciation of the complexities of public management.

Prerequisite(s): upper division standing.

PAD 3882 - Issues in Public Service Administration

3 Credit Hours

(Offered as Needed)

This course focuses on current issues and trends in the field of public service administration. The course is structured to introduce management and administrative topics in public service, examine the implications to the field, and reformulate recommendations. This course will begin developing skills in project design and presentation. This course will enhance critical thinking skills.

Prerequisite(s): upper division standing.

PAD 4878 - Capstone: Public Service

3 Credit Hours

(Offered as Needed)

This course provides an opportunity for the student to complete a professional project and apply information and skills studied in core and concentration program courses under the direction of the professor. Successful completion of the course requires demonstration of achievement of the program's learning outcomes. This course should be completed in the last term before graduation.

Prerequisite(s): upper division standing.

PEL 1212A - Advanced Softball

1 Credit Hour

(Offered as needed)

Instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

PEL 1213 - Advanced Softball II

1 Credit Hour

(Offered as needed)

This course is a continuation of Advanced Softball, which consists of instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1212A (Athletes)

PEL 1217A - Advanced Baseball

1 Credit Hour
(Offered as needed)

Instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

PEL 1219 - Advanced Baseball II

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Baseball, which consists of instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1217A (Athletes)

PEL 1624M - Advanced Basketball (Men)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill-oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1624W - Advanced Basketball (Women)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including: rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1626M - Advanced Basketball II (Men)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Men, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball.

Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624M (Athletes)

PEL 1626W - Advanced Basketball II (Women)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Women, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624W (Athletes)

PEM 1131A - Strength Training

3 Credit Hours
(Offered as needed)

This course is a high intensity lecture/demonstration and flexible lab hour weight training program designed to increase the size, strength, and endurance of the skeletal muscle system. Instruction includes, but is not limited to, weight training safety, etiquette, history, and nutrition. Instruction will be given in the design of progressive resistance programs to increase total body efficiency and to meet the objectives of the individual student. Students are responsible for determining fitness for training, and those with medical problems which restrict personal activities are encouraged to obtain medical clearance before enrolling in the course.

PEM 2108 - Fitness Lab

1 Credit Hour
(Offered as needed)

Instruction and participation in an exercise program with emphasis on muscle endurance, strength and flexibility.

Prerequisite(s): HLP 1081 or approved wellness assessment by the department chair.

This course may be taken up to four times for credit.

PEO 2004 - Theory and Practice of Teaching a Specific Sport

3 Credit Hours
(Offered as needed)

This course is designed to provide knowledge of the rules, teaching progressions and strategies for competition. The

course includes acceptable behavior and ethics for coaches. This course will be offered for the following specific sports: baseball/softball, basketball, football, golf, soccer, swimming, tennis, track and field/cross country, volleyball and wrestling.

PEO 2005 - Coaching Theory

3 Credit Hours
(Offered as needed)

This course is designed to provide knowledge of the characteristics, principles, ethics, and theories related to coaching sports in educational and recreational settings. Emphasis is placed on preparing coaches to train athletes to achieve optimal levels of performance.

PET 1000 - Introduction to Physical Education

3 Credit Hours
(Offered as needed)

A study of the history of physical education and sport with particular emphasis placed on present practices and trends.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

PGY 1220C - Commercial Photography I

4 Credit Hours
(Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using a high quality digital studio camera, electronic lighting, and digital applications of their work. It is recommended that students take PGY 1801C prior to or at the same time as this course.

PGY 1401C - Basic Photography

3 Credit Hours
(Fall, Spring)

A beginning course in black and white photographic and darkroom technique. Students will learn the functions of their camera and darkroom equipment. Students will apply their technical knowledge to various artistic challenges. Access to a 35mm camera with manual mode required.

PGY 1405C - Advanced Black and White Photography

3 Credit Hours
(Fall, Spring)

An advanced course in black and white photography. Students will be presented with more demanding creative challenges and will be exposed to a variety of advanced procedures in the darkroom. Access to a 35mm camera with manual mode required.

Prerequisite(s): PGY 1401C or equivalent.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

PGY 2221C - Commercial Photography II

4 Credit Hours
(Offered as needed)

As advanced a course that allows the student to expand their skill set in producing photographic illustrations for industrial and advertising use. Students may explore product, portrait, and on-location commercial photographic projects.

Prerequisite(s): PGY 1220C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2804C - Digital Photography III

4 Credit Hours
(Offered as needed)

An advanced-level photography courses where creative idea generation and composition in photography are

emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 2802C.

▲ Technology-Across-the-Curriculum Course.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2600 - Introduction to Ethics

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2930 - Philosophy – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

PLA 1003 - Introduction to Paralegal Studies

3 Credit Hours
(Fall)

This course is designed to give students a broad understanding of the nature of the paralegal profession and the elements contained within the profession, as well as its responsibility.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1114 - Legal Research and Writing

3 Credit Hours
(Spring)

This course is designed to provide the student with necessary skills and knowledge required in legal research/case analysis and legal writing.

Prerequisite(s): PLA 1003 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1600 - Wills, Trusts, and Probate

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of estate planning, wills, and probate administration.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1800 - Introduction to Family Law

3 Credit Hours
(Spring)

An introduction to practices as they relate to family law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2273 - Tort Law

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of tort law with objectives centered on

personal injury torts.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2949 - Internship - Paralegal

3 Credit Hours (Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): completion of a minimum of 12 credit hours in the appropriate discipline, including PLA 1003 and permission of the instructor is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

*This college credit course is not intended for transfer and may not be applied toward the AA degree.

PMT 0106C - Welder Helper

150 Clock Hours (Fall, Spring)

This course provides instruction in shop safety, the use of safety procedures and protective equipment needed in a welding shop. Course includes basic shop math, shop safety, welding equipment setup/teardown procedures.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0111C - Metal Preparation

150 Clock Hours (Fall, Summer)

This course provides instruction in different metal preparation processes including: thermal preparation (oxygen/fuel cutting, carbon arc cutting, plasma torch cutting). The student will also learn mechanical preparation (band saw, grinder, power brush, and other metal prep equipment).

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides instruction and demonstration using Shielded Metal Arc Welding (SMAW). Topics include visually inspect of welds, and basic SMAW technical terminology. Basic structural welding techniques will be demonstrated in accordance with American Welding Society (AWS) D1.1 Structural Welding Code. Tack welding and metal joint fit of carbon steel is covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0122C - Basic Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course introduces structural fillet welds in different joint positions in accordance with AWS D1.1 Structural Welding Code. Fillet welds will be performed on carbon steel plate of various thicknesses.

Prerequisite(s): PMT 0121C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides the student with instruction on joint design, joint preparation, and fit-up, and performance of groove welds with backing. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds with backing and make acceptable groove welds with backing using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0122C

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW)

**75 Clock Hours
(Spring, Summer)**

This course provides the student with advanced instruction on joint design, joint preparation, and fit-up, and performance of open groove welds. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of open groove welds and make acceptable open groove welds in all positions using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0126C

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PMT 0134C - Gas Metal Arc Welding (GMAW)

**50 Clock Hours
(Spring, Summer)**

This course provides instruction and demonstration using the various transfer methods and techniques of Gas Metal Arc Welding (GMAW). Topics included are safety, equipment set-up, joint design and preparation, and gases.

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PMT 0145C - Flux-Core Arc Welding (FCAW)

**240 Clock Hours
(Offered as Needed)**

This course provides instruction and demonstration using the various transfer methods and techniques to flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Flux-Core Arc Welding (FCAW) and basic understanding of pipe welding. Welding symbols and blueprint reading are covered in this course.

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PMT 0155C - Gas Tungsten Arc Welding (GTAW)

**160 Clock Hours
(Offered as Needed)**

This course provides instruction and demonstration using the various transfer methods and techniques to

gas tungsten arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Gas Tungsten Arc Welding (GTAW), and basic understanding of pipe welding.

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding

200 Clock Hours
(Offered as needed)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the Shielded Metal Arc Weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to demonstrate pipe positions, proper electrodes selection, proper joint geometry, joint preparation, fit-up, and proper SMAW pipe welding techniques in accordance with applicable codes.

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PMT 0171C - SMAW-GTAW Pipe Welding

400 Clock Hours
(Offered as needed)

This course is designed to provide the students with skills in welding carbon steel pipe using Shielded Metal Arc Weld process and Gas Tungsten Arc Weld (GTAW) processes using proper filler metals in the 2G, 5G, and 6G positions. Upon completion, students should be able to perform shielded metal arc welding process and gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in the 2G, 5G, and 6G position in accordance with the applicable code.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0173C - Specialty Pipe Welding

150 Clock Hours
(Offered as needed)

This courses covers advanced pipe welding and is designed to build advanced GTAW skills. This course covers advanced Gas Tungsten Arc Welding (GTAW) on alloy pipe and heavy wall carbon pipe.

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PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class

offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSC 2905 - Independent Study – Physical Science

1 Credit Hour
(Fall, Spring, Summer)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the physical sciences for which present course availability is limited. Meets specific general education requirements.

This course may be taken up to four times for credit.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

REA 0056 - Developmental Reading Module

2 College Prep Credits
(Fall, Spring, Summer)

This course is designed to increase the student's ability to comprehend college-level, written material (not applicable for degree completion). Conducted in a lab setting, this course is self-paced, designed to allow students to focus on their individual development of higher level reading skills and vocabulary needed for literal and critical interpretation of passages similar to those used in college texts. This course may be taken in place of REA 0017. Students must pass the class with a "C" or better and obtain a passing score on the end of course exam.

Prerequisite(s): Students must score 96-105 on the PERT or elective basis score 106 or higher on the PERT.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

REA 1205 - Reading Across the Genres I

3 Credit Hours
(Offered as needed)

This college-level reading course employs a variety of literary genres as the source material for building student skills in comprehension, context clues, reading speed, critical analysis, vocabulary, and other related reading skills. Students will be exposed to numerous styles and levels of reading material including novels, short stories, critical essays, drama, news reporting. Students will also develop a personal reading preference profile and learn how to identify books, magazines and other reading material commensurate with that profile.

Prerequisite(s): PERT placement score of 106 or higher.

RED 3309C - Early and Emergent Literacy K-2

3 Credit Hours
(Fall, Spring)

This course is designed to increase the understanding of early literacy development and the conditions which promote total literacy from birth through lower elementary grades. Language theory and current research are used to shape informed practices regarding literacy development. Connections are made among all aspects of literacy learning: reading, writing, listening, speaking and attitude development. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3324C - Teaching in the Middle Grades Curriculum

3 Credit Hours (Fall, Spring)

This course presents theory and methodology for teaching reading at the middle school level with emphasis on strategies for vocabulary and comprehension, evaluating student progress in reading, and integrating reading and study skills into content area instruction across the middle school curriculum. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3335C - Teaching Reading in the Content Areas

3 Credit Hours (Fall, Spring)

This course addresses strategies, materials, and skills for teaching reading in content areas. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3324C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3511 - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours (Fall, Spring)

This course combines the theory and practice in the teaching of reading/ literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a minimum grade of "C" or better and is restricted to practicing teachers.

Prerequisite(s): RED 3309C and upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

RED 3511C - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours (Fall, Spring)

This course combines the theory and practice in the teaching of reading/literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4312 - Integration of Assessment into Classroom Reading

3 Credit Hours
(Summer)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on integrating assessments into the curriculum to strengthen instructional strategies and student success. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): RED 3309C, RED 3511C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4519C - Diagnostic and Instructional Interventions in Reading

3 Credit Hours
(Fall, Spring)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4854C - Reading Field Experience

2 Credit Hours
(Fall, Spring)

This course provides application of knowledge of reading development to reading instruction. Emphasis is placed on increased reading proficiency for struggling students, including students with disabilities and students from diverse populations. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C, RED 4312, RED 4519C, upper division standing with permission of department chair

REL 2300 - Introduction to World Religions

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

This course will explore the principles and practices of the world's major religious traditions. The religions will be studied in their historical and contemporary forms. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

REL 2930 - Religion – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

RTE 1000 - Introduction to Radiologic Technology

2 Credit Hours
(Summer, Offered as needed)

This course is designed to provide an overview of the history of radiography and the role and scope of practice of the practitioner in the healthcare delivery system. Organizations, accreditation, federal agencies, regulatory agencies (including OSHA), and professional credentialing will be discussed. Content includes a fundamental background in medical law, ethics, human diversity, and patient consent. The student will examine a variety of ethical issues and dilemmas found in clinical practice, as well as developing a better understanding of patients, the patient's families, and professional peers through comparison of diverse populations based on value systems, cultural and ethnic influences, communication styles, and socioeconomic influences. Radiographic medical terminology and pharmacology will be covered. Site specific clinical education paperwork will be completed. Background check, drug screening, training, and clinical site approval mandatory.

Prerequisite(s): Admission to the Radiography Program.

RTE 1111 - Introduction to Radiographic Patient Care

2 Credit Hours
(Fall)

This course is designed to prepare radiography students to provide basic patient care. Basic concepts of patient care will be described, as well as infection control procedures and standard precautions. This course includes hospital specific training. Health risks, life stages, HIV/AIDs and domestic violence will be discussed. This course also includes an introduction to medical and radiographic terminology. Topics include vital signs, venipuncture, body mechanics and transport, verbal/nonverbal communication, and some pharmacology.

Prerequisite(s): admission to the Radiography Program.

RTE 1418 - Radiographic Techniques I

3 Credit Hours (Fall)

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. This course introduces the student to a comprehensive study and theory of the production of x-rays and primary exposure factors of radiographic imaging. The image parameters of density, contrast, recorded detail, image distortion and blur will be studied as well as ancillary devices and equipment required to produce a quality radiographic image. Digital imaging with related accessories will be emphasized. Class demonstrations and exercises are used to demonstrate application of theory.

Prerequisite(s): MAC 1105 or other Gordon Rule math course and admission to the Radiography Program.

RTE 1457C - Radiographic Techniques II

4 Credit Hours (Spring)

This course is a continuation of RTE 1418 Radiographic Techniques I. Course content includes the basics of magnetism, electricity, motors, generators, rectifying systems, x-ray tube and filament circuitry. Topics in electromagnetism such as self and mutual induction, high voltage transformation, and AC rectification will be emphasized. An introduction of special radiographic methods will include automatic exposure control, computers, fluoroscopy and image intensification, subtraction radiography, conventional tomography, digital image receptors, and digital image acquisition and manipulation.

Prerequisite(s): RTE 1418.

Corequisite(s): RTE 1513C

RTE 1503C - Radiographic Procedures I

4 Credit Hours (Fall)

This course is designed to provide the Radiography student with instruction in radiographic examinations of the chest, abdomen, upper extremity and lower extremity. An introduction to medical and radiographic terminology, radiographic anatomy, and image critique are also included.

Prerequisite(s): BSC 1085C and admission to the Radiography program.

RTE 1513C - Radiographic Procedures II

4 Credit Hours (Spring)

This course is a continuation of RTE 1503C. It is designed to provide the student with instruction in radiographic procedures and anatomy in the distal extremities, hip region, spine, ribs, and sternum and the cranium. Critical thinking, medical and radiographic terminology, as well as image critique are emphasized.

Prerequisite(s): RTE 1503C, RTE 1804L , and BSC 1086C

Corequisite(s): RTE 1814L.

RTE 1804L - Radiography Clinical Education I

3 Credit Hours

(Fall)

This course involves the practical application of the theories covered in RTE 1503C and RTE 1000. Rotations provide experience with various imaging systems, protocols, and patient care. Students observe, assist and perform basic radiographic procedures (chest, abdomen and extremities) under direct supervision. This course emphasizes patient care and critical thinking. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1000

Corequisite(s): RTE 1503C

RTE 1814L - Radiography Clinical Education II

3 Credit Hours

(Spring)

This course is a continuation of Radiography Clinical Education I. This clinical training emphasizes lower and upper extremity. Medical and radiographic terminology, patient care, critical thinking and communication skills are emphasized. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1804L

Corequisite(s): RTE 1513C.

RTE 1824L - Radiography Clinical Education III

4 Credit Hours

(Summer)

This course is a continuation of Radiography Clinical Education II. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I and II. The student will gain experience and develop clinical competence in general radiographic procedures such as the cranium and specialized contrast studies. Advanced patient care skills, critical thinking, imaging and exposure techniques, radiation protection application and image processing will be emphasized. This rotation covers clinical experience in all phases of fundamental radiologic procedures and image critique. Students will rotate through ancillary departments in this course.

Prerequisite(s): RTE 1814L

Corequisite(s): RTE 2523C.

RTE 2061 - Radiographic Preparation for Practice

4 Credit Hours

(Spring)

This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover patient care and education, image production, equipment operation and maintenance, radiographic procedures and radiation protection. The student will also be given simulated registry examinations for practice and assessment purposes.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2854L.

RTE 2385 - Radiographic Protection and Biology

3 Credit Hours

(Fall)

This course is designed to provide the student with an overview of the principles of interaction of ionizing radiation with living systems. Ionizing effects on molecules, cells, tissues and the body as a whole are presented, along with factors affecting biological response, including; acute, chronic, stochastic and non-stochastic effects. This course is also designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and healthcare organizations are incorporated, as are the various methods of monitoring radiation exposure and acceptable dose limit values.

Prerequisite(s): RTE 1000, RTE 1418, RTE 1457C, RTE 2523C

Corequisite(s): RTE 2844L.

RTE 2473 - Radiographic Quality Assurance

2 Credit Hours

(Fall)

This course is designed to introduce the radiography student to evaluation methodology of radiographic systems to assure consistency in the production of quality images. Image critique, fluoroscopy, malfunctions, and specifications are some of the topics covered in the course.

Prerequisite(s): RTE 1418, RTE 1457C

Corequisite(s): RTE 2844L.

RTE 2523C - Radiographic Procedures III

3 Credit Hours

(Summer)

This course is a continuation of RTE 1513C covering cranium procedures and positioning. It is designed to provide the student with instruction in more complex radiographic procedures such as fluoroscopy, urinary studies, bone age, trauma, pediatrics, mobile and surgical radiography. Included is instruction in additional modalities and studies such as CT, MRI, arthrography, myelography, and vascular studies. Attention will be given to the specialized equipment, contrast media, critical thinking and techniques necessary to perform these procedures. Radiographic anatomy, pathology, and critique of images are included in this course.

Prerequisite(s): RTE 1513C

Corequisite(s): RTE 1824L.

RTE 2533C - Radiographic Procedures IV

**2 Credit Hours
(Fall)**

This is a continuation of RTE 2523C, with emphasis on special procedures and additional modalities. Students are required to complete observations hours within specialty areas.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2844L

RTE 2571 - Introduction to Computed Tomography

**1 Credit Hour
(Spring)**

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Content is not intended to result in clinical competency.

Prerequisite(s): RTE 1418

RTE 2782 - Radiographic Pathology

**3 Credit Hours
(Spring)**

This course is designed to introduce theories of disease causation and the pathophysiologic disorder that compromise healthy persons. Etiology, pathophysiologic responses, clinical manifestations, and radiographic appearance of alterations in body systems will be presented. Emphasis will be placed on pathological findings on diagnostic radiographic images.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2854L.

RTE 2844L - Radiography Clinical Education IV

**5 Credit Hours
(Fall)**

This course is a continuation of RTE 1824L. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I, II and III. The student will gain experience and develop clinical competence in specialized imaging procedures, and mobile, surgical and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 1824L

Corequisite(s): RTE 2385.

RTE 2854L - Radiography Clinical Education V

5 Credit Hours (Spring)

This course is a continuation of RTE 2844L. The terminal objective for this course is to prepare the student for employment as an entry level technologist. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I-IV and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2061.

SBM 2000 - Small Business Management

3 Credit Hours (Spring)

This course provides students the opportunity to learn hands-on technical applications regarding entrepreneurship. It is designed for the student who is interested in the ownership and management of a small business enterprise.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SCE 3350C - Principles and Methods for Teaching Science K-8

3 Credit Hours (Fall, Spring)

This course provides techniques, methods and materials of instruction for teaching science in grades K-8. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4930C - Professional Science Educator

1 Credit Hour (Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in science, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4940C - Teaching Methods in Middle Grades Science Field Experience

1 Credit Hour
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching science in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4945 - Internship - Middle Grades Science

9 Credit Hours
(Offered as needed)

Supervised teaching of Middle Grades Science in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430, EDG 3343, EDG 3410C, EME 3410C, EEX 3070, ESC 1000, EVR 3949, ISC 4145, MET 1010C, RED 3324C, RED 3335C, SCE 3350C, SCE 4940C, TSL 3081C, and CHM 1020 or PHY 1020

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 1201 - Service Learning Seminar

1 Credit Hour
(Offered as needed)

A seminar course designed to enhance and reinforce the value of civic responsibility and to provide students with a community service program opportunity by volunteering in community agencies in the public and private sectors.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SPN 1121 - Spanish II

4 Credit Hours
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): SPN 1120 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2220 - Spanish III

4 Credit Hours
(Offered as needed)

Intermediate level review of grammar, readings in Spanish Literature, and development of conversational and writing skills.

Prerequisite(s): SPN 1121 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2221 - Spanish IV

4 Credit Hours
(Offered as needed)

Completion of intermediate level review of grammar, readings in Spanish literature, and development of conversational and writing skills.

Prerequisite(s):
SPN 2220 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 3036 - Spanish for Health Care Providers

3 Credit Hours
(Offered as needed)

Spanish for Health Care Providers is designed for individuals majoring in nursing or working in health-related areas. The course focuses on vocabulary needed for the healthcare workplace, with grammar taught as a task-based practical skill. Students will learn phrases used to complete health assessments which include conducting interviews, filling out forms, writing reports, and reading and understanding medical articles and brochures. Prevalent disease processes will be discussed as well as cultural practices that affect health care, specifically the health care of Spanish-speaking patients. This course does not fulfill any part of the Florida state language requirements.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

SYG 2000 - Sociology

3 Credit Hours ◆ ◆
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ◆ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading

achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

SYG 2430 - The Family and Society

3 Credit Hours
(Fall, Spring, Summer)

An examination of the problems which arise out of participation in marriage, family and community situations. Designed to provide students with a basic understanding of the dynamics of family interaction, the effects upon the children, and the family's relationship to and participation in the community.

TAR 2121C - Architectural Drafting

3 Credit Hours
(Offered as needed)

Architectural design and development of residential and light commercial buildings to include: development and construction of good architectural freehand lettering, VA and FHA approved residential house plans, "Good Sense" house plans as defined in the Arkansas Plan, and heat loss/heat gain calculations.

Prerequisite(s): ETD 1102 or ETD 1112 or equivalent.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

THE 1905A - Independent Study – Theater

1 Credit Hour
(Offered as needed)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2071 - Humanities – Cinema Appreciation

3 Credit Hours † ¶
(Fall, Spring, Summer)

An introduction to the origin, development, cultural aspects and analysis of cinema topics. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2300 - Dramatic Literature

3 Credit Hours † ¶
(Fall, Spring)

Survey of dramatic works from the Greeks to the 20th century, with emphasis on the plays of the 19th and 20th centuries; intensive investigation and script analysis with reports, lectures and discussions. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

THE 2820 - Musical Theater Workshop

3 Credit Hours
(Summer)

An introduction to creative dramatics and children's theater. Topics span a wide range of interests; creative experience, children and theater, workshop procedure, script selection, rehearsal and performance.

THE 2821 - Musical Theater Workshop II

3 Credit Hours
(Summer)

Creative dramatics introduces the many elements of theater: dance, voice and musical theater. Topics span a wide range of interests: the creative process, workshop procedures, rehearsal and performance. Creative Dramatics will focus on producing a final performance.

Prerequisite(s): THE 2820.

THE 2930 - Theater – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

TPA 2276C - Entertainment Technology - Crafts

3 Credit Hours
(Spring)

This course presents the practices and principles of advanced woodworking, welding, smithing, casting, ceramics, plaster work, fiberglass and plastic technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented that will use items created in a realized production.

Prerequisite(s): TPA 1210.

TPA 2292 - Technical Theatre Lab III

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1291

TPA 2301 - Technical Theatre Lab IV

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 2292

TPA 2331 - Costume Construction

3 Credit Hours
(Offered as needed)

An introduction to costume construction techniques and wardrobe design. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in costume construction.

Prerequisite(s): TPA 2232

TPA 2343 - CAD for the Theatre

3 Credit Hours
(Offered as Needed)

This course is project oriented covering fundamental through advanced material in computer aided drafting and design and its application for the theatre.

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1192 - Rehearsal and Performance III

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1191.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2120 - Improvisation

3 Credit Hours
Offered as needed

This course explores the use of creativity and imagination, engaging the actor in a wide variety of improvisational theatre games.

TPP 2141 - Acting in Shakespeare

3 Credit Hours
(Offered as needed)

This course is an introduction to the concepts, principles, and skills needed to develop characters in Shakespeare's plays. The course focuses on the hidden clues in the text to discover character choices and meaning. Specific analysis and the techniques of scansion are introduced as they relate to character interpretation. Application of these techniques will be presented in scenes and monologues.

TPP 2150 - Advanced Scene Study

3 Credit Hours
(Fall)

This course is a continuation of the processes and concepts of TPP 2111, Acting II, with the addition of new techniques to create dynamic and engaging characterizations through performance.

TPP 2220 - Auditioning

3 Credit Hours
(Offered as Needed)

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2250 - Introduction to Musical Theatre

3 Credit Hours
(Fall)

Introduction to the study of Musical Theater analysis, creation, and performance with an emphasis on singing, dancing, and acting.

TPP 2301 - Directing I

3 Credit Hours
(Offered as needed)

A beginning course in the study, development and training in directing for the theater. Although not a prerequisite, students are encouraged to take Acting I and II before Directing I.

TPP 2302 - Directing II

3 Credit Hours
(Offered as needed)

Directing II is a continued study of the basic principles of directing for the theater with emphasis in the continued study, development and training in directing for the theater.

Prerequisite(s): TPP 2301.

TPP 2533 - Stage Combat I (Unarmed & Rapier)

3 Credit Hours
(Spring)

Through in-class study and performance the student will develop an understanding of and proficiency in the safe techniques of unarmed and rapier stage combat which are required of a theatrical performer. Application of these techniques will be presented in two scenes, one for unarmed and one for rapier.

TPP 2930 - Theater Performance – Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

TRA 0080 - Tractor Trailer Truck Driver

320 Clock Hours
(Spring)

This course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements.

TRA 0086 - Tractor Operator

150 Clock Hours
(Fall)

This course is designed to build on the skills and knowledge students learned in the Heavy Equipment Maintenance Technician course for entry into the Heavy Equipment Operations industry. Content emphasizes beginning skills and concepts as a recommended requisite. Students study pneumatic and crawler-type tractor operations.

TRA 0650 - Natural Gas Distribution I

75 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance.

TRA 0650B - Natural Gas Distribution IB

**75 Clock Hours
(Fall)**

This course is prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance. This course continues the knowledge acquired in the TRA0650.

TRA 0651 - Natural Gas Distribution II

**150 Clock Hours
(Fall)**

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

Prerequisite(s): TRA 0650

TRA 0652 - Natural Gas Distribution III

**150 Clock Hours
(Fall)**

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

TRA 3132 - Procurement Management

**3 Credit Hours
(Offered as Needed)**

Purchasing is required by all types of goods-producing & service-providing organizations in such sectors as manufacturing, agriculture, health care, & government. This professional business function tries to buy the right good or service at the right quality, in the right quantity, at the right time, at the right price, from the right source, with delivery at the right place.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

TRA 4203 - Principles of Logistics

**3 Credit Hours
(Offered as Needed)**

Overview of logistics function within a firm and in the context of integrated vertical systems. Topics include customer service, information flow, inventory control, materials management, order processing, packaging, physical distribution.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

TSL 3081 - TESOL Issues and Practices

3 Credit Hours
(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C." Neither field experience or a background check/fingerprinting are required for current teachers enrolled in this course.

Prerequisite(s): Upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

TSL 3081C - TESOL Issues and Practice

3 Credit Hours
(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 4140C - ESOL Methods, Curriculum and Assessment

3 Credit Hours
(Fall, Spring)

This course is designed to build on the candidate's knowledge of applied linguistics and cross cultural communication. Candidates will extend their understanding of the role of language and culture in the classroom. This course will prepare candidates for effective planning, instruction, and assessment of ELLs in the classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): TSL 3081C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

WOH 1012 - World Civilization: Early Humans through Global Expansion

3 Credit Hours ♦ ¶
(Offered Fall, Spring, Summer)

A study of world history from 4000 BC to 1650 AD as it relates to the development of western civilization. History is

analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communication/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present

3 Credit Hours ❖ ¶

(Offered Fall, Spring, Summer)

A study of history from 1650 AD to the present as it relates to the development of the modern world. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

XEL 01__ - ESOL I

This course provides small group and individualized instruction in both oral and written English communication skills at the beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 02__ - ESOL II

This course provides small group and individualized instruction in both oral and written English communication skills at the low beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 03__ - ESOL III

This course provides small group and individualized instruction in both oral and written English communication skills at the high beginning level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 04__ - ESOL IV

This course provides small group and individualized instruction in both oral and written English communication skills at the low intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 05__ - ESOL V

This course provides small group and individualized instruction in both oral and written English communication skills at the high intermediate level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XEL 06__ - ESOL VI

This course provides small group and individualized instruction in both oral and written English communication skills at the advanced level. The course is designed for non-native English speakers.

* Course number varies with number of instructional contact hours.

XGE 14__ - GED 2014 Comprehensive

The GED 2014 Comprehensive Preparation Program provides skills and knowledge building for each of the four content-area assessments of the Official GED 2014 Tests: Reasoning through Language Arts, Mathematics Reasoning, Science, and Social Studies. The purpose of the program is to prepare students to obtain the knowledge and skills necessary to pass the Official GED Tests and be awarded a State of Florida High School Diploma. An additional performance level will certify that the adult student is career and college ready. This program strives to motivate students not only to obtain a GED diploma, but to continue their education to earn a postsecondary degree, certificate, or industry certification.

*Course number varies with number of instructional contact hours.

ZOO 1010C - Zoology

4 Credit Hours
(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

College Location Maps

Course Prefixes by Department

Department/Program Area	Phone #	Course Prefixes
Advanced Technology and Design	729-5218	ARC, ART, BCN, BCT, CET, CTS, EET, EGS, ETD, ETG, ETI, ETM, GRA, PMT, PGY,
Allied Health <i>Dental Assisting</i> <i>Medical Coder/Biller</i> <i>Nursing</i> <i>Paramedic</i> <i>Radiography</i>	729-6444 729-6444 729-6400 729-4924 729-6444	DEA, DES, EMS, HIM, HSA, HSC, NSP, NUR, RTE
Athletics, Health, and Fitness	729-5379	HLP, HSC, PEL, PEM, PET, PEO
Business	729-5369	ACO, ACG, BUL, COM, ECO, FIN, GEB, HFT, MAN, MAR, MKA, MNA, MTB, OTA, OST, PAD, SLS, TAX
Child Development	729-6081	EEC, DEP
Computer Science	729-5369	CDA, CEN, CET, CGS, CIS, CAP, COP, CTS, ISM
Education	729-6440	EDE, EDF, EDG, EEX, EME, LAE, MAE, MHF, RED, SCE, SSE, TSL
English/Communications	729-5390	AML, ASL, CHI, COM, CRW, ENC, ENG, ENL, FRE, LIN, LIS, LIT, REA, SPC, SPN
Humanities, Fine & Performing Arts	729-5382	ARH, ART, DAA, HUM, IDS, MUH, MUM, MUN, MUS, MUT, MVB, MVK, MVP, MVS, MVV, MVW, PGY, PHI, REL, THE, TPA, TPP
Mathematics	729-5377	MAC, MAD, MAE, MAP, MAS, MAT, MFG, MGF, MHF, MTB, MTG, STA
Military Science (ROTC)	729-6022	MSL
Public Safety	729-5378	CCJ, CJB, CJC, CJD, CJE, CJJ, CJK, CJL, CJT, DSC, EMS, FFP, PLA
Sciences	729-5376	AST, BOT, BSC, CHM, ESC, EVS, GLY, HUN, ISC, MCB, MET, OCE, PCB, PHY, PSC, SCE, ZOO

Social Sciences	729-5391	AMH, ANT, CLP, DEP, EDP, EUH, GEA, GEO, ISS, POS, POT, PSY, SLS, SYG, WOH

Developmental Education Courses

Developmental Education Courses

ENC 0017 - Integrated Reading and Writing I

4 Credit Hours
(Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a thorough review of English grammar and conventions and practice in writing paragraphs and essays while building skills in vocabulary and academic reading comprehension. Students must pass the class with a "C" or better grade.

Prerequisite(s): Appropriate score on PERT or other approved assessment.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 0027 - Integrated Reading and Writing II

4 Credit Hours
(Fall, Spring, Summer)

This course is designed to develop reading comprehension and writing language skills for students whose entry level placement scores do not meet requirements for degree credit (not applicable for degree completion). The course includes a review of English grammar and convention and practice in writing persuasive essays while building skills in vocabulary and academic reading comprehension. Student must pass the class with a "C" or better grade.

Prerequisite(s): Minimum grade of "C" in ENC 0017 or appropriate PERT or other approved assessment score.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

ENC 0056 - Developmental Writing Module

2 College Prep Credits
(Offered as Needed)

This course is designed to develop written language skills for students whose entry placement scores do not meet requirements for degree credit courses (not applicable for degree completion). Conducted in a lab setting, this course is self-paced course, designed to allow students to focus on their individual grammar, usage, and writing needs to prepare for successful entry into college credit English courses (not applicable for degree completion). This course may be taken in place of ENC 0027 if a student has a placement score of 98-102 on the PERT. Students may exit Developmental Writing Module by passing the coursework and by obtaining a passing score on the Departmental Exit Exam.

Prerequisite(s): Students must score 98-102 on the PERT or on an elective basis score 103 or higher on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0018 - Developmental Mathematics I

3 College Prep Credits (Offered as needed)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). It is designed to reinforce the knowledge of operations and applications of fractions, decimals, percents, and signed numbers. An introduction to algebra will also be covered. Students must pass this class with a "C" or better to move on to MAT 0028.

Prerequisite(s): A score of 50-95 on the PERT.

Corequisite(s): SLS 1101.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0022 - Developmental Mathematics Combined

6 Credit Hours (Fall, Spring, Summer)

A course designed to satisfy the requirements of both MAT0018 and MAT0028 in one semester and prepare students for MAT1033A. Topics to be studied include computations with decimals, percents, integers, operations with rational and polynomial expressions, linear equations and inequalities in one variable, factoring, and basic linear graphing. This course will teach the student to understand and communicate concepts of algebra in the language of mathematics, both orally and written. Due to the nature of this course, calculators are not permitted. A grade of "C" or better is required for successful completion of this course. College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

Prerequisite(s): score of 50-95 on the PERT

Prereq/Corequisites: SLS 1101

MAT 0028 - Developmental Mathematics II

4 College Prep Credits (Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit (not applicable for degree completion). This course emphasizes concepts, techniques, and applications of the following topics: operations with real numbers, linear equations and inequalities in one variable, rational expressions, properties of exponents, polynomials, radical expressions, and graphs of lines.

Prerequisite(s): Grade of "C" or better in MAT 0018 or score of 96-113 on the PERT or on an elective basis a score of 114 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0056 - Developmental Mathematics Module

2 College Prep Credits (Fall, Spring, Summer)

This course is designed for students whose entry level placement test scores do not meet requirements for degree credit. This course emphasizes concepts, techniques, and applications of the following topics: operations with real

numbers, linear equations and inequalities in one variable, rational expressions; properties of exponents, polynomials, radical expressions, and graphs of lines. Student may exit Developmental Mathematics Module by passing the coursework and by obtaining a passing score on the Exit Exam.

Prerequisite(s): score of 105-109 on the PERT or elective basis score 110 or higher on the PERT

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

MAT 0157 - Modularized Developmental Mathematics II

4 College Prep Credits (Fall, Spring)

This course is designed to help students develop computational & algebra skills needed for success in college level mathematics. This course uses a modular format in a lecture/lab setting. Students will take a diagnostic test in class to identify skills that have not been mastered and to determine placement into the appropriate modules. Each student will have an individualized learning plan such that he or she works only on skills not yet mastered. Possible topics in the learning plan include operations on signed numbers, solving linear equations and inequalities in one variable, graphing linear equations, operations with exponents and polynomial expressions, factoring polynomials and solving quadratic equations, introduction to rational expressions, and operations with square roots. Students will use computerized instruction as well as guided instruction by the instructor. Successful completion of this course requires mastery of the material in each module and a passing score of the department final exam. Course cannot be used toward AA or AS degree.

Prerequisite(s): MAT 0018 with a grade of "C" or better or a score of 96-113 on the PERT.

* College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

REA 0056 - Developmental Reading Module

2 College Prep Credits (Fall, Spring, Summer)

This course is designed to increase the student's ability to comprehend college-level, written material (not applicable for degree completion). Conducted in a lab setting, this course is self-paced, designed to allow students to focus on their individual development of higher level reading skills and vocabulary needed for literal and critical interpretation of passages similar to those used in college texts. This course may be taken in place of REA 0017. Students must pass the class with a "C" or better and obtain a passing score on the end of course exam.

Prerequisite(s): Students must score 96-105 on the PERT or elective basis score 106 or higher on the PERT.

*College preparatory credits may not be counted toward fulfilling the number of credits required for a degree.

Directed Independent Study

Directed independent study provides opportunities for students to earn college credits in standard courses by working with a college instructor on an independent basis. Students enrolling for courses under Directed Independent Study (DIS) are expected to accomplish the goals and objectives as specified in the course syllabus and are expected to attend such class meetings, group sessions, and working conferences as specified by the instructor. Courses are scheduled on a flexible basis as approved by the instructor, the department chair, and by the Vice President of Academic Affairs with the understanding that final exams will be taken and grades awarded during the term in which they begin. All regular fees apply to DIS courses.

DIS course enrollments are authorized under the following conditions:

- A documented need exists for the student(s) to enroll for the course immediately rather than taking an alternate course or waiting until the next term in which the desired course would be offered.
- The student is able to identify an instructor who is willing to teach the course as DIS.
- The student understands the extensive burden which he or she is undertaking.
- Enrollment is approved by the Department Chair and Vice President of Academic Affairs.
- When it is not feasible for the course/section to be scheduled concurrently and taught at the same time and locations as another course/section.

General Course Information

Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and by participating nonpublic institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online SCNS to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at <http://scns.fldoe.org>.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the SCNS. The listing of prefixes and associated courses is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course profiles."

Examples of Course Identifiers

Prefix	Level Code (first digit)	Century Digit (second digit)	Decade Digit (third digit)	Unit Digit (fourth digit)	Lab Code
ENC	1	1	0	1	
English Composition	Lower (Freshman) Level at this institution	Freshman Composition	Freshman Composition Skills	Freshman Composition Skills I	No laboratory component in this course

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions, as listed below in Exceptions to the General Rule for Equivalency.

For example, a freshman composition skills course is offered by 84 different public and nonpublic postsecondary institutions. Each institution uses "ENC_101" to identify its freshman composition skills course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "ENC" means "English Composition," the century digit "1" represents "Freshman Composition," the decade digit "0" represents "Freshman Composition Skills," and the unit digit "1" represents "Freshman Composition Skills I."

In the sciences and certain other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course that has the same prefix and course number but meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, ENC 1101 is offered at a community college. The same course is offered at a state university as ENC 2101. A student who has successfully completed ENC 1101 at a Florida College System institution is guaranteed to receive transfer credit for ENC 2101 at the state university if the student transfers. The student cannot be required to take ENC 2101 again since ENC 1101 is equivalent to ENC 2101. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent. **NOTE:** Credit generated at institutions on the quarter-term system may not transfer the equivalent number of credits to institutions on the semester-term system. For example, 4.0 quarter hours often transfers as 2.67 semester hours.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or subcategory of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

Authority for Acceptance of Equivalent Courses

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

Exceptions to the General Rule for Equivalency

Since the initial implementation of the SCNS, specific disciplines or types of courses have been excepted from the guarantee of transfer for equivalent courses. These include courses that must be evaluated individually or courses in which the student must be evaluated for mastery of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

1. Courses not offered by the receiving institution.
2. For courses at nonregionally accredited institutions, courses offered prior to the established transfer date of the course in question.
3. Courses in the _900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Apprenticeships, Practica, Study Abroad, Theses, and Dissertations.
4. Applied academics for adult education courses.

5. Graduate courses.
6. Internships, apprenticeships, practica, clinical experiences, and study abroad courses with numbers other than those ranging from 900-999.
7. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (e.g., portfolio, audition, interview, etc.).

Courses at Nonregionally Accredited Institutions

The SCNS makes available on its home page (<http://scns.fldoe.org>) a report entitled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all nonpublic institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to Northwest Florida State College, Office of the Vice President of Instruction or to the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the SCNS office at (850) 245-0427 or at <http://scns.fldoe.org>.

Lower Division College Credit Courses

Lower Division College Credit Courses

ACG 2001 - Accounting I

3 Credit Hours
(Fall)

This course covers the fundamental principles and procedures of double entry accounting as applied to the financial records of a business entity. The preparation of an income statement, statement of owner's equity and balance sheet are emphasized. Specific transactions and internal control associated with cash, accounts receivable and inventory will be examined in detail. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): MTB 1103 and knowledge of basic computer and keyboarding skills are strongly recommended

▲ Technology-Across-the-Curriculum Course.

ACG 2011 - Accounting II

3 Credit Hours
(Spring)

This course covers recording of specific transactions and internal control associated with investments, fixed assets, liabilities, international operations and stockholders' equity. Preparation of the statement of cash flow will be emphasized. The code of professional ethics will be highlighted throughout the course.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

ACG 2071 - Managerial Accounting

3 Credit Hours
(Spring)

This course covers the basic principles of accounting techniques for the preparation of internal reports related to management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the entity.

Corequisite(s): ACG 2011 with instructor/department approval.

ACG 2450 - Computer Applications for Accounting

3 Credit Hours
(Spring)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting.

Prerequisite(s): ACG 2001 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

ACO 1806 - Payroll Accounting

3 Credit Hours
(Spring)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms.

Prerequisite(s): ACG 2001 is strongly recommended and knowledge of basic computer and keyboarding skills are strongly recommended.

AMH 2010 - American History I

3 Credit Hours ¶
(Fall, Spring, Summer)

American History to 1877; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AMH 2020 - American History II

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

American History from 1877, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

AML 2010 - American Literature: 1492 - 1865

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from the pre-Colonial period to the Civil War. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

AML 2020 - American Literature: 1865 - Present

3 Credit Hours ¶
(Offered as needed)

A course in American Literature from Civil War to present. This course may be used for Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: AML 2010 is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ANT 2000 - Introduction to Anthropology

3 Credit Hours ♦ ♦
(Offered as needed)

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of anthropology: cultural anthropology, biological anthropology, archaeology, and linguistics. A cross-cultural perspective will be paramount in the study of anthropology.

Prereq/Corequisites: ♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ANT 2100 - Introduction to Archaeology

3 Credit Hours ♦
(Offered as Needed)

Introduction to the fundamental principles, methods, and theories in archaeology. Includes a history of the development of archaeology, and examination of the nature of archaeological data and research, an introduction to archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but non-western examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ARC 1131 - Architectural Presentation

3 Credit Hours
(Summer)

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C - Design 1.1

4 Credit Hours
(Fall)

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C - Design 1.2

4 Credit Hours
(Spring)

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 1301C.

ARC 2201 - Theory of Architecture

3 Credit Hours
(Fall, Spring)

An introduction to architectural theory, selected contemporary architectural theories and movements, and their

evolution and historical basis. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ETD 1102.

ARC 2303A - Design 2.1

6 Credit Hours

(Fall)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

Prerequisite(s): ARC 2201.

ARC 2304 - Design 2.2

6 Credit Hours

(Spring)

Application of two and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior.

Prerequisite(s): ARC 2303A.

ARC 2472 - Introduction to the Technology of Architecture

4 Credit Hours

(Summer)

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501 - Architectural Structures I

3 Credit Hours

(Offered as needed)

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the

Technology of Architecture.

Prerequisite(s): any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2701 - Survey of History of Architecture, Part I

3 Credit Hours
(Offered as needed)

A critical exploration of the history and theory of architecture from pre-history through the end of the 13th century. Examination of the making and intent of significant buildings and sites tracing the developments that have given meaning to the built environment and brought order to the tectonics of architecture. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARH 1000 - Art Appreciation

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but compliments the art major's course of study as an elective. This is a Writing-Across-the-Curriculum course requiring selected written assignments. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course is also a Speaking-Across-the-Curriculum course requiring selected speaking assignments. This course qualifies, as well, as having an international and/or diversity focus for Teacher Education programs common prerequisites.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2050 - Art History: Pre-Renaissance

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule

requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2051 - Art History: Renaissance - 18th Century Neo-Classicism

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2060 - Architecture History

3 Credit Hours ♦ † ¶
(Fall, Spring)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2402 - Art History: Modern Art

3 Credit Hours ♦ † ¶
(Fall, Spring)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ARH 2930 - Art History – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

ART 1201C - Two-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1203C - Three-Dimensional Design

3 Credit Hours
(Fall, Spring)

An introductory course, both theoretical and applied, dealing with principles of organization and the elements of design in a 3-dimensional format. Various materials, tools, and surfaces are used to explore 3-D form. This is a foundation course. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1300C - Drawing I

3 Credit Hours

(Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1301C - Drawing II

3 Credit Hours

(Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored.

Prerequisite(s): ART 1300C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 1750C - Pottery I

3 Credit Hours

(Fall, Spring, Summer)

The students shall be exposed to the production of pottery utilizing all known hand building techniques. Also includes introduction to potter's wheel and basic wheel fundamentals. The first half of course is hand building, the second half is devoted to development of skills on the potter's wheel. Students also learn how to glaze pottery and make glass. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 1751C - Pottery II

3 Credit Hours

(Fall, Spring, Summer)

Continues hand building of Pottery I, but major emphasis is placed upon development skills utilizing the potter's wheel. Additional glazing experimentation is also emphasized.

Prerequisite(s): ART 1750C. Please refer to catalog section regarding audit enrollment.

ART 1905A - Independent Study – Art

1 Credit Hour

(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual

departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

ART 2330C - Figure Drawing I

3 Credit Hours
(Fall, Spring)

The development of technical skills and self-expression through drawing the figure; course begins with anatomy studies, progresses to conceptualization of human form. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2331C - Figure Drawing II

3 Credit Hours
(Fall, Spring)

This class is a continuation of Figure Drawing I. Emphasis is on composition and self-expression in relation to the human figure. Exploration of media and content will be encouraged.

Prerequisite(s): ART 2330C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2500C - Painting I

3 Credit Hours
(Fall, Spring)

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing, and execution thereof within a variety of subject matter. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2501C - Painting II

3 Credit Hours
(Fall, Spring)

This course is a continuation of Painting I ART 2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed.

Prerequisite(s): ART 2500C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2540C - Water Color I

3 Credit Hours
(Fall, Spring)

An introduction to water media techniques applied to various subject matter through demonstrations and various lab experiences. Open to all students. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2541C - Water Color II

3 Credit Hours
(Fall, Spring)

Allows continued experience in more complex water color technique and subject matter. Emphasis is on composition and individual expression.

Prerequisite(s): ART 2540C. Audit enrollment In studio art classes is permitted on a space-available basis only.

ART 2602C - Digital Imaging I

4 Credit Hours
(Offered as needed)

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to an appropriate high quality digital camera is required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

ART 2603C - Digital Imaging II

4 Credit Hours
(Offered as needed)

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Access to an appropriate high quality digital camera required.

Prerequisite(s): ART 2602C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

ART 2701C - Sculpture I

3 Credit Hours
(Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2703C - Sculpture II

3 Credit Hours
(Spring)

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach.

Prerequisite(s): ART 2701C. Audit enrollment in studio art classes is permitted on a space-available basis only.

ART 2930 - Art - Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

ART 2955 - Portfolio Development

3 Credit Hours
(Spring)

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation.

Prerequisite(s): ART 1201C, ART 1203C, ART 1300C, ART 1301C.

ASC 2560C - Unmanned Aerial Vehicles & Systems

5 Credit Hours
(Spring)

This course is a survey of unmanned aerial vehicles (UAV) and systems, emphasizing the military and commercial history, growth and applications of UAVs. Course will include basic acquisition, use and operation of UAVs with an emphasis on operations.

Prerequisite(s): ATT 1100

ASC 2564C - Unmanned Vehicle Security

4 Credit Hours
(Spring)

Participants will develop an understanding of the digital operations of an unmanned vehicle. Methods of securing digital information during the upload and downloading functions will be explored.

ASC 2949C - Unmanned Systems Practicum

4 Credit Hours
(Spring)

Practical application in a clinical setting of knowledge acquired in the classroom.

ASL 1140 - American Sign Language I

4 Credit Hours ♦
(Fall, Spring)

Introduces the student to the basic vocabulary and finger spelling of American Sign Language. Emphasis will be on learning to express this language in a simple form and have a basic receptive language competency.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

ASL 1150 - American Sign Language II

4 Credit Hours
(Fall, Spring)

This course increases the student's American Sign Language vocabulary and uses more complex expression of thoughts, ideas, and emotions and increases the receptive and expressive proficiency of the student in both sign and finger spelling.

Prerequisite(s): ASL 1140 or an equivalent course with a grade of "C" or better

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

ASL 2160 - American Sign Language III

4 Credit Hours
(Summer)

A conversational course in American Sign Language utilizing skills and vocabulary from American Sign Language I and II and building on these to form more complex expressions in American Sign Language. Impromptu and planned stories, dialogues and skits will be performed. Receptive and expressive finger spelling will be advanced. No voice will be used for the majority of classroom time.

Prerequisite(s): ASL 1150 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

AST 1002 - Descriptive Astronomy

3 Credit Hours ♦
(Fall, Spring, Summer)

This non-lab one-semester course is designed to meet the general education requirements in physical science for non-science majors and for students in related scientific fields needing a scientific elective. The course includes topics in planetary astronomy, the sun and stellar evolution, galaxies, and cosmology. Also covered are basic physical laws, light, and telescopes. Exercises require only basic math with some very limited algebra.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

AST 1005 - Introduction to Astrobiology

3 Credit Hours
(Spring)

This course will explore the scientific evidence for the possibility, probability, and potential nature of life that might exist beyond the Earth. Contemporary discoveries about current and past conditions suitable for the origin of life on Mars and some of the moons orbiting other planets in our own solar system are reviewed in the context of what we understand about life on Earth. The question of life in other solar systems is also covered. Space travel and problems regarding intelligent extra-terrestrial beings visiting the Earth and intelligent life beyond the Earth but still within our own solar system are also discussed. All this is done in a fashion which integrates the various branches of science required to understand life beyond the Earth: Astronomy, Biology, Chemistry, Geology, and Physics. There are no prerequisites for this course and it may be taught in a team fashion by faculty members from various scientific disciplines.

ATT 1100 - Private Pilot Ground School

3 Credit Hours
(Fall)

An introductory survey of the subjects pertaining to flight; aircraft operation and performance, weather, pilotage, air traffic control and Federal Aviation Regulations in preparation for the Federal Aviation Administration Private Pilot Written examination.

BCN 1230 - Building Construction Materials and Processes

3 Credit Hours
(Fall)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry.

BCN 1272 - Blueprint Reading for Commercial Construction

3 Credit Hours
(Fall, Spring)

A course to familiarize non-drafting students with techniques of blueprint reading and the fundamentals of construction methods that make blueprint reading meaningful.

BCN 1520 - Electrical Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with electrical terminology, practices, methods, code requirements and safety and health in construction.

BCN 1567 - Plumbing and Gas Construction Practices

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with Plumbing and Gas code requirements, terminology, methods, practices, processes and safety and health used in building construction.

BCN 2231 - Building Construction Materials and Processes II

3 Credit Hours
(Spring)

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry. The focus of the course will cover Divisions 9 through 16 of the construction industry.

BCN 2560 - Mechanical Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with mechanical trades terminology, methods, practices, code requirements processes, and safety and health criteria in mechanical construction.

BCN 2721 - Construction Management/Planning

3 Credit Hours
(Fall, Spring, Summer)

The course covers project development and organization from pre-construction site investigation to final completion. The course will include the management of project estimates, plans, schedules, operations and safety. The student will become knowledgeable about documents used in the construction industry for bid, contracts, zoning, permits, bonds, loans specifications and drawings. Cost engineering, procurement, value engineering and quality assurance will be covered. Cost management through job cost analysis and purchase order systems will also be covered.

BCT 1763 - Construction Safety and Health

3 Credit Hours
(Fall, Spring, Summer)

A basic course in construction safety and health, covering such topics as: theories of accident causation; workplace hazards; hazard analysis and prevention; accident reporting; OSHA construction standard and safety practices; environmental safety; violence in the workplace; ergonomics; ethics and safety; workers' compensation; and stress on the job.

BCT 2761 - Structural Systems in Construction

3 Credit Hours
(Fall, Spring, Summer)

A course to familiarize students with structural terminology, practices, methods, code requirements and safety, and health criteria in construction.

BCT 2770 - Construction Estimating

3 Credit Hours
(Fall, Spring)

A course in estimating as it relates to the construction industry covering references, estimating methods, take-off organization and presentation; material take-off, cost estimating in heavy construction, mathematical formulas for estimating, quantity take-off from plan review, and computer estimating overview.

Prerequisite(s): BCN 1230, BCN 1272.

BOT 1010C - Botany

4 Credit Hours
(Spring)

This course covers the structure and function of seed plants, basic information on plant metabolism, including photosynthesis and water relations, and a survey of lower plants, algae and fungi. It introduces basic concepts of ecology and plant geography and stresses the importance of plants to humans. Laboratory sessions illustrate concepts from the lecture using specimens, microscope slides and field trips.

BSC 1005 - General Biology

3 Credit Hours ♦
(Fall, Spring, Summer)

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1005L - Biology Lab

1 Credit Hour
(Fall, Spring)

Laboratory for General Biology. Experimental methodology and technique. Not recommended for Biology majors.

Prereq/Corequisites: BSC 1005 or equivalent.

BSC 1010C - Principles of Biology I

4 Credit Hours ♦
(Fall, Spring)

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1011C - Principles of Biology II

4 Credit Hours

(Fall, Spring)

This course is a continuation of BSC 1010C. It provides an overview of the history of life on Earth, a summary of the concepts of phylogeny and classification, and a survey of organisms with emphasis on plants and animals. Structure, evolution, taxonomy, and ecology of the major phyla will be included. This course is required for Biology, Pre-Med, and most Pre-Professional Science majors.

Prerequisite(s): BSC 1010C.

BSC 1080 - Essentials of Anatomy and Physiology

3 Credit Hours

(Fall, Spring)

This course surveys basic structure and function of the human body with emphasis on terminology and anatomy.

BSC 1085C - Anatomy and Physiology I

4 Credit Hours ♦

(Fall, Spring, Summer)

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

BSC 1086C - Anatomy and Physiology II

4 Credit Hours

(Fall, Spring, Summer)

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 1905 - Independent Study – Biology

1 Credit Hour

(Fall, Spring, Summer)

A course designed to (1) allow a student to complete part of a course taken elsewhere and thereby complete general education requirements, (2) to go deeper into special areas of interest.

This course may be taken up to four times for credit.

BSC 2020C - Human Structure and Function

4 Credit Hours
(Fall, Spring, Summer)

A study of the structures and functions of the human body with emphasis on system integrations (homeostasis) and an introduction to system disorders and pathologies.

BUL 2241 - Business Law I

3 Credit Hours
(Fall, Spring)

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the Law of Sales based on the Uniform Commercial Code. Recommended for Business degree students.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 2242 - Business Law II

3 Credit Hours
Offered as needed

Course context explores laws relative to negotiable instruments, agency, partnerships, (includes study of Uniform Partnership Act), corporation law, creditors rights, consumer protection and insurance. Based on Uniform Commercial Code.

Prerequisite(s): BUL 2241 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

CAP 2134C - Database Security

3 Credit Hours
(Spring)

This course is designed to provide the student with an understanding of database security concepts and practices. The objective of the course is to provide hands-on instruction in various database tasks that relate to securing the confidentiality, integrity and availability of information that is stored in a database. The student will be able to perform administrative tasks in different database management systems, as well as manage database user profiles, privileges, and roles. Different database application security models will be explored, as will the security advantages of utilizing virtual private databases. Finally, the process of database auditing will be explored, including auditing methods using various database management systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 2660

▲ Technology-Across-the-Curriculum Course.

CAP 2762 - Data Mining

3 Credit Hours
(Offered as needed)

This course offers exploration of data mining methodologies. Topics may include decision tables, decision trees, classification rules, association rules, clustering, statistical modeling, and linear models and will focus on data warehousing, data mining and data drilling.

Prerequisite(s): CGS 2541 or any programming language are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CCJ 1010 - Introduction to Criminology

3 Credit Hours
(Spring)

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; theory development in criminology, crime rates and trends, victimology and particular crime pattern areas.

CCJ 1020 - Introduction to Criminal Justice

3 Credit Hours
(Fall)

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies, court and criminal procedures, career opportunities in the Criminal Justice field are also covered.

CCJ 1941 - Internship – Criminal Justice

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Permission of the instructor

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CCJ 2509 - Introduction to Gangs and Crime

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of street gangs, the social factors, and the general classifications necessary for the law enforcement, corrections, and public safety professional. This course explores the history, membership, activity, current trends, and influence of street gangs. Students will be challenged to define community-based solutions and strategies to combat the criminal activity associated with street gangs.

CCJ 2934 - Special Topics in Criminal Justice

2 Credit Hours
(Fall, Spring, Summer)

This course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

*This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

CET 1600C - Networking Fundamentals

3 Credit Hours
(Fall, Spring)

This course introduces the student to the basics of Internetworking technology. This is also the first of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study networks and layers, networking devices, IP addressing, ARP and RARP, media and design, topology, structured cabling, electricity, and electronics and network management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1610C - Routing Protocols and Concepts

3 Credit Hours
(Fall, Spring)

Basic Router terminology and configurations are studied in this course. The student will study router components, router configuration, IOS, TCP/IP, IP addressing, and router protocols. This is one of the four courses designed to prepare a student to take the CISCO Certified Network Associate Exam (CCNA).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: CET 1600C is required.

▲ Technology-Across-the-Curriculum Course.

CET 1675C - Introduction to IP Telephony

3 Credit Hours
(Fall)

This course explains how companies are using IP Telephony equipment and software to efficiently upgrade existing telephone systems. In addition, the course will give the student a fundamental understanding of the architecture of

voice communication and how signaling, call quality and public switched telephone networks operate in a LAN/WAN networking environment. The use of IP Telephony products will be discussed and how software allows companies to cost-effectively upgrade and eventually replace existing (legacy) telephone systems with more cost-effective and easy-to-use telephone equipment.

Prerequisite(s): CET 1600C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 1854C - Introduction to Wireless Technology

3 Credit Hours
(Fall)

This course teaches key wireless networking topics, including wireless technology and architecture network design, types of wireless networks, and applications. Special focus on technical matters, wireless communication products, wireless networking products, and wireless LANS products. It is recommended that all students have a least a basic knowledge of networking, including protocol, the OSI module, and TCIP/IP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2179C - PC Operating Systems A+

3 Credit Hours
(Fall)

This course is designed to help prepare the student to take the A+ Certification exams by making the student proficient in personal computer operating systems, including Windows. Major topics include disk and file management, system configurations, menu driven processing, graphical user interfaces, boot files, disk caching, virtual memory, device drivers, remote assistance, and security essentials and security practices.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2182C - PC Hardware A+

3 Credit Hours
(Spring)

This course is designed to prepare the student to take the A+ Certification exam, by teaching the student basic technical skills needed to understand the function and operation of the major elements of personal computer systems, and how to localize and correct common hardware and software problems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2615C - LAN Switching and Wireless

**3 Credit Hours
(Spring)**

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study LAN Switching, VLANs, OSPF, EIGRP, VTP, classless routing and Access Lists.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2620C - Accessing the WAN

**3 Credit Hours
(Spring)**

This course introduces the student to advanced router configurations and network design. This is also the last of four courses designed to prepare a student to take the CISCO Certified Network Associate Exam. The student will study WAN technology and design, PPP, ISDN, Frame Relay, and network management.

Prerequisite(s): CET 2615C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2660 - Network Security

**3 Credit Hours
(Fall, Spring)**

This course provides an in-depth study of network security concepts and techniques. Students examine theoretical concepts that make computer network security unique. This course provides a practical, hands-on approach when examining networking security techniques. Students examine different network strategies, explore the advancement of network implementation, and study timeless problem solving strategies. The course is also intended to assist with preparation for the CompTIA Security+ certification.

Prerequisite(s): Knowledge of networking basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2682C - Cisco Voice over IP (VoIP)

**3 Credit Hours
(Spring)**

Instruction includes, but is not limited to, Voice over Internet Protocol (VoIP) theory, Voice Gateway configuration in a IP Telephony (IPT) solution, IP Phone configuration, design of VoIP networks and troubleshooting IPT networks. Students will design and configure various VoIP networks using case studies and laboratory equipment.

Prerequisite(s): CET 1675C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2685C - Fundamentals of Network Security

3 Credit Hours
(Spring)

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CISCO Security Specialist certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2854C - Fundamentals of Wireless LANs

3 Credit Hours
(Offered as needed)

Develop, implement and troubleshoot wireless networks. This hands-on, skill-based course focuses on the design, planning and operation of wireless networks, with an overview of technologies, security, and design best practices. This course helps prepare the student for the CISCO Wireless Certification.

Prerequisite(s): CET 1610C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2880C - Digital Forensics Fundamentals

3 Credit Hours
(Fall and Spring)

This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. the course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2881C - Digital Forensics II

3 Credit Hours
(Spring)

Digital Forensics II builds upon the foundational knowledge learned in digital forensics fundamentals. Students will

utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cell phones, smart phones, mp3 players, gps), and devices such as dvr's and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the accessdata certified examiner (ace) examination.

Prerequisite(s): CET 2880C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2891C - Wireless Network Security Certification

3 Credit Hours
(Offered as needed)

This course prepares students to secure wireless networks and protect valuable data from intruders. The following subjects are covered: intrusion tools and techniques, detection systems, WPA/WPA2/802.11i security, enterprise wireless gateways, encryption gateways, secure wireless bridging, and wireless VPN routers. This course prepares students for the compTIA wireless certification exam.

Prerequisite(s): CET 1854C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2892C - Advanced Network Security

3 Credit Hours
(Spring)

This course examines advanced network security topics including, but not limited to, advanced topics in integration of hardware firewalls, advanced topics in Intrusion Detection Systems (IDS), advanced topics in Internet Protocol-security (IPSec), and advanced topics in Virtual Private Networking (VPN) in network security design. Students will implement designs using equipment in a laboratory setting.

Prerequisite(s): CET 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CET 2905 - Independent Study, Computer Engineering

1 Credit Hour
(Offered as needed)

This is a directed study course to provide computer engineering students with individual projects designed to meet specific needs in areas of computer engineering technology for which present course availability is limited.

Prerequisite(s): instructor or departmental chair approval. Knowledge of basic computer and keyboarding skills are strongly recommended.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2940 - Computer Engineering Internship

1 Credit Hour

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2941 - Computer Engineering Internship

2 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CET 2942 - Computer Engineering Internship

3 Credit Hours

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the

student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to four times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CGS 1030 - Computer Basics

3 Credit Hours
(Fall, Spring)

This is an introductory course for basic computer use, including the Internet. It addresses the use of computers for personal, business, and college purposes. It introduces the Windows operating system and Microsoft Office applications, including Word, Excel, and PowerPoint. Hands-on use of a personal computer is required.

Prerequisite(s): none

CGS 1100 - Microcomputer Applications

3 Credit Hours ▲
(Fall, Spring)

This is a hands-on course using computer software including discussion and practical applications of the Windows operating system, computing concepts, Internet, word processing, spreadsheets, database management, presentation software, and various communications topics.

Prerequisite(s): none

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

CGS 1550 - Introduction to World Wide Web

3 Credit Hours
(Fall)

This course provides an introduction to the required hardware, software, procedures, uses and building web pages on the World Wide Web and the Internet.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1570 - Computer Applications for Business

3 Credit Hours
(Fall, Spring)

This is a hands-on course using computer software (word processing, spreadsheet and database) to facilitate the activities involved in the business environment.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 1843 - Introduction to E-Commerce

3 Credit Hours
(Offered as needed)

This course is designed to provide students with an overview of the dynamics of electronic commerce and how it links information technology to business objectives. Course may not transfer to all State University System institutions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2541 - Introduction to Database Concepts

3 Credit Hours
(Fall)

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2544 - Advanced Database Concepts

3 Credit Hours
(Summer)

The aim of this course is to explore advanced database concepts including an advanced exploration of data modeling and the design and implementation of relational databases. This course will extend the students' understanding of advanced principles and techniques used in the design and implementation of modern database systems and explore database problems and potential solutions.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CGS 2820 - Web Design

3 Credit Hours
(Fall)

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful window programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics and linking applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CHI 1120 - Mandarin Chinese I

4 Credit Hours ♦
(Fall)

This course focuses on pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language. Designed for students with no previous knowledge of Chinese.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

CHI 1121 - Mandarin Chinese II

4 Credit Hours
(Spring)

This course is a continuation of Mandarin Chinese I with additional vocabulary and grammar. Pronunciation and grammatical structures of Mandarin Chinese, with emphasis upon balanced development of all four skills: listening, speaking, reading and writing. Covers all basic structures of the language and develops a foundation for further study of the language.

Prerequisite(s): CHI 1120 or an equivalent course with a minimum grade of "C".

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

CHM 1020 - Chemical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1032C - General Chemistry for Life Sciences

4 Credit Hours
(Fall, Spring, Summer)

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms.

Prerequisite(s): MAT 1033A or appropriate placement test scores.

CHM 1045C - College Chemistry I

4 Credit Hours ♦
(Fall, Spring, Summer)

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermochemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit.

Prerequisite(s): MAC 1105 required; high school Chemistry or Physics, CHM 1020 or PHY 1020 advised.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

CHM 1046C - College Chemistry II

4 Credit Hours
(Fall, Spring, Summer)

Continuation of CHM 1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis.

Prerequisite(s): CHM 1045C.

CHM 2210C - Organic Chemistry I

4 Credit Hours
(Fall)

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics.

Prerequisite(s): CHM 1046C.

CHM 2211C - Organic Chemistry II

4 Credit Hours
(Spring)

In continuation of CHM 2210C - Organic Chemistry I the relationships between functional groups and properties of organic compounds will be discussed. Infrared, NMR, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions, the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included.

Prerequisite(s): CHM 2210C.

CIS 1000 - Introduction to Computer Science

3 Credit Hours
(Fall, Spring, Summer)

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Math placement at the college algebra level strongly advised.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CIS 1940 - Internship in Computer Studies

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

▲ Technology-Across-the-Curriculum Course.

CIS 2352C - Ethical Hacking Fundamentals

3 Credit Hours
(Fall)

This course is designed to provide the student with an understanding of the techniques and methodologies of security penetration testing. This course provides hands-on instruction using the various tools and methods that security professionals use to analyze an information system in order to discover vulnerabilities and protect against information

loss, cyber-terrorism, and corporate espionage. The student will be introduced to fundamental security testing concepts, gain practical knowledge of computer programming, learn how to properly document a security test, and explore the legal and ethical ramifications of penetration testing. Students will also learn how to apply the appropriate countermeasures in order to reduce the risk that an organization faces.

Prerequisite(s): CTS 1134 is required. Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CJC 2000 - Introduction to Corrections

3 Credit Hours
(Fall)

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; and problems of rehabilitation are covered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJE 1642C - Introduction to Crime Scene Technology

3 Credit Hours
(Fall, Spring, Summer)

This course explains and discusses the principals and theories in crime scene technology. The course covers specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence, gunshot residue, blood splatter and bodies.

CJE 2300 - Police Administration and Organization

3 Credit Hours
(Fall, Spring, Summer)

This course presents the principles of organization and administration in law enforcement including functions and activities, planning and research, public relations, personnel and training, inspection and control, records and communications and custody.

CJE 2330 - Ethics in Criminal Justice

3 Credit Hours
(Fall, Spring, Summer)

This course is a detailed exploration of ethical issues in Criminal justice with special emphasis on morality and the law, human behavior, and ethical decision making in law enforcement, corrections and the courts.

CJE 2400 - Police and Community Relations

3 Credit Hours
(Fall, Spring, Summer)

A study of the relationship of the Justice Administration agencies to the surrounding community. Examines the effect of social change and the consequences that it produces upon law enforcement, corrections, and the courts.

CJE 2600 - Criminal Investigations

3 Credit Hours
(Offered as needed)

Fundamentals of investigation; duties and responsibilities of the detective; interrogation techniques; search and techniques of protecting the crime scene; collection and preservation of evidence; modus operandi systems; scientific aids and other sources of information; court preparation and case follow-up.

CJJ 1002 - Juvenile Delinquency

3 Credit Hours
(Offered as needed)

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJL 1100 - Criminal Law

3 Credit Hours
(Fall)

Includes the study of the fundamentals of Criminal Law to include historical background and development, jurisdiction, the criminal act and responsibility, as well as, classification and analysis of Florida Statutes.

CJL 1400 - Criminal Procedure

3 Credit Hours
(Spring)

Includes the study of the fundamentals of constitutional, criminal and civil law; principles, duties and mechanics of criminal procedures in Florida as applied to arrest, search, seizure, and court processing; and a functional analysis of the rules of evidence in court procedures.

CJL 2130 - Criminal Evidence and Procedure

3 Credit Hours
(Fall, Spring, Summer)

This course provides students with an overview of criminal procedure particularly applied to search and seizure and evaluation of evidence.

CJL 2500 - Courts and the Judicial Process

3 Credit Hours
(Fall)

This course is designed to teach the student the major structures and basic legal concepts of the American criminal court system. The students shall learn the components, personnel, and inherent social issues in our present criminal court system.

CLP 1001 - Personal Adjustment

3 Credit Hours
(Fall, Spring, Summer)

Psychology of adjustment, application of psychological theory for problem solving and better mental health. An examination of psychological defense mechanisms and adaptive behavior.

CLP 2140 - Abnormal Psychology

3 Credit Hours
(Fall, Spring, Summer)

A study of the different problems in psychopathology, including anxiety, depression, social deviance, psychosis, schizophrenia, mental retardation and general brain dysfunction of both children and adults, with emphasis on descriptive etiology, known causes, and treatments.

Prerequisite(s): PSY 2012.

COP 1000 - Introduction to Programming Concepts and Logic

3 Credit Hours
(Fall, Spring, Summer)

General survey of programming/problem solving techniques. Includes an introduction to structured programming. Algorithm development will employ the use of a modern programming language.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2010 - Visual Basic Programming

3 Credit Hours
(Fall)

This course introduces programming in Visual Basic.Net. The student will learn to create innovative and dynamic data structures using Rapid Application Development techniques. Topics to be discussed include: graphical user interface development and object-oriented programming.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2011 - Advanced Applications Programming in Visual Basic

**3 Credit Hours
(Summer)**

This course introduces the advanced features of Visual Basic.Net. The student will learn to create advanced versions of innovative and useful Windows programs using Rapid Application Development techniques. Topics to be discussed include: basic and advanced graphical user interface development; sequential file processing; advanced object-oriented programming; ActiveX components; advanced database management development including interfacing to external applications and Visual Basic's internal database manager; multimedia, networking; and advanced data structures.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2030 - Programming In Python

**3 Credit Hours
(Offered as needed)**

An Introduction to Python programming language using microcomputers. Topics include Python basics, use of Python control and data structures, use of Python function, Python 110, and implementation of basic programming tasks.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2176 - Visual Basic ADO.Net

**3 Credit Hours
(Offered as needed)**

The aim of this course is to provide an advanced level of knowledge in database programming using Visual Basic's ADO.Net, using normalization, object and relational types, modeling, data validation, and structured query language (SQL) in creating database applications.

Prerequisite(s): COP 2010 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2544, COP 2011.

▲ Technology-Across-the-Curriculum Course.

COP 2220 - Programming in C

**3 Credit Hours
(Spring)**

An introduction to C programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2222 - Advanced Programming in C

3 Credit Hours
(Offered as needed)

An advanced exploration of the C programming language using microcomputers.

Prerequisite(s): COP 2220 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2224 - Programming in C++

3 Credit Hours
(Spring)

An introduction to C++ programming using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2228 - Advanced Programming in C++

3 Credit Hours
(Summer)

An advanced exploration of the C++ programming language using microcomputers.

Prerequisite(s): COP 2224 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2360 - Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

An introduction to the C# programming language using microcomputers.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2362 - Advanced Programming in C Sharp (C#)

3 Credit Hours
(Offered as needed)

This hands-on course examines how to utilize advanced features in the .NET Framework using the C# programming language, in order to build sophisticated applications. Students will work with advanced object-oriented programming topics, including inheritance, partial classes and generics.

Prerequisite(s):

COP 2360 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2654 - Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progresses into the details of the UIKit, as well as several other frameworks essential for development on the iPhone and iPad.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2658 - Advanced Programming for Mobile Devices: iOS (iPhone/iPad)

3 Credit Hours
(Offered as needed)

This class teaches the advanced iOS programming topics and provides a broad perspective of the iPhone SDK platform. It begins with an overview of the Objective-C language and progressed into the advanced details of the UIKit, as well as several other frameworks essential for advanced development of the iPhone and iPad.

Prerequisite(s): COP 2654 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2660 - Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches the fundamentals and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2662 - Advanced Programming for Mobile Devices: Android

3 Credit Hours
(Offered as needed)

This class teaches advanced concepts and provides a broad perspective of the Android development platform. It begins with an overview of the Java language and progresses into the details of the developing for Android-based mobile devices and tablets. The curriculum also covers several other frameworks essential for development on the Android platform.

Prerequisite(s): COP 2660 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2700 - Introduction to SQL

3 Credit Hours
(Spring)

An introduction to SQL and the design and creation of object-oriented databases (using SQL). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

Prerequisite(s): COP 1000 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2702 - Introduction to PL-SQL

3 Credit Hours
(Offered as needed)

An introduction to PL-SQL and the design and creation of object-oriented databases (using PL-SQL). Topics include storing, retrieving, updating and displaying data using PL-SQL and Oracle.

Prerequisite(s): COP 1000 and CTS 2440 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2800 - Introduction to Java Programming

3 Credit Hours
(Fall, Spring)

An introduction to programming using the Java language. Students will develop and apply individual programs.

Prerequisite(s): COP 1000 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2805 - Advanced Java Programming

3 Credit Hours
(Spring)

An advanced level programming course using advanced Java techniques.

Prerequisite(s): COP 2800 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

COP 2833 - Databasing for Internet Applications

3 Credit Hours
(Offered as needed)

This course will expose students to basic relational database concepts used in web programming, including structuring data and making queries.

Prerequisite(s): CGS 2541 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CGS 2820

▲ Technology-Across-the-Curriculum Course.

COP 2840 - Web-based Programming I

3 Credit Hours
(Spring)

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-Commerce applications.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CRW 2001 - Creative Writing I

3 Credit Hours
(Fall, Spring, Summer)

Instruction and practice in writing fiction and poetry. Students will submit a poetry portfolio and complete at least one short story.

CRW 2002 - Creative Writing II

3 Credit Hours
(Fall, Spring, Summer)

Advanced work in poetry and prose modes with emphasis on revision. Students will submit a poetry portfolio and write and revise at least one complete short story. Students will prepare creative work for publisher market.

CRW 2100 - Introduction to Fiction Writing

3 Credit Hours
(Offered as needed)

Practice in writing fiction using various points-of-view. Students will submit completed short stories for workshop. Upon agreement with the instructor, students may elect to develop novel chapters with synopsis. Students will prepare creative work for publisher market.

CRW 2201 - Introduction to Creative Nonfiction

3 Credit Hours
(Offered as needed)

This writing course examines the narrative possibilities of creative nonfiction. We will explore structure, technique, and authorial presence in representative works of established sub-genres, including literary journalism, travel and/or food writing, memoir, the lyric essay and collage.

CRW 2300 - Introduction to Poetry Writing

3 Credit Hours
(Offered as needed)

Practice in writing poetic forms employing poetic techniques. Students will workshop completed poems and submit a portfolio of revised poetry. Students will prepare creative work for publisher market.

CTS 1106 - Fundamentals of UNIX

3 Credit Hours
(Spring)

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in administration and certification.

Prerequisite(s): Knowledge of networking, basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1134 - Network Foundations

3 Credit Hours
(Fall)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 1156C - Desktop Support

3 Credit Hours
(Fall)

This course introduces the helpdesk skills to troubleshoot hardware or software operation and application problems for end users on the desktop or client-side, based on the Windows operating system. It is designed to help prepare the student to take the two core exams (70-620 and 70-622) required for certification as an MCITP: Enterprise Support Technician students should have user-level competency with Windows and MS Office.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2104 - Introduction to Windows

3 Credit Hours
(Spring)

An introduction to operating systems in general with emphasis on Windows.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2143C - CompTIA Server+

3 Credit Hours
(Spring)

This course provides advanced concepts in server hardware components and troubleshooting in a non-vendor-specific environment. Introduction to server installation, server storage concepts, administering services, server roles, virtualization, performance monitoring, security, data protection, and maintenance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2163C - Windows Client Operating System

3 Credit Hours
(Spring)

This course addresses the implementation and desktop support needs of the MS client software, including installation, configuration and management of hardware and file systems, user profiles, remote users, and monitoring of resources and performance. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2302C - Windows Active Directory

3 Credit Hours
(Spring)

This course focuses on a Windows server directory service environment, including forest and domain structure, DNS, site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user/group/computer account strategies. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): CTS 1156C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2314C - Network Defense and Countermeasures

3 Credit Hours
(Fall)

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure and implement secure networks. Security topics covered in this course include firewalls, Intrusion Detection Systems (IDS), Virtual Private Networks (VPN) and policy creation using the Windows Operating System (OS), Transmission Control Protocol/Internet Protocol (TCP/IP) packet and signature analysis. The student will get hands-on instruction installing the network defense mechanisms and countermeasure applications. Software will be used for collecting, monitoring and auditing various activities; students will analyze threats and intrusions.

Prerequisite(s): CET 2660 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2321 - UNIX Administration

3 Credit Hours
(Offered as needed)

This course is designed for network administrators in a UNIX operating environment. UNIX operating system concepts, architecture and administration will be explored using Linux. Includes shell programming, database managements, rapid application development, and programming tools such as PERL and C++.

Prerequisite(s): CTS 1134 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): CTS 1106

▲ Technology-Across-the-Curriculum Course.

CTS 2346C - Windows Server Administrator

3 Credit Hours
(Offered as needed)

This course will provide students with the opportunity to develop the skills required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data. Recommended knowledge level: A+, Network +, Security + and Win client operating system. This course prepares the student for the MCITP exam.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2347C - Windows Network Infrastructure

3 Credit Hours
(As Needed)

This course addresses the configuration of Windows Server network infrastructure. Topics covered include: routing and remote access, network access protection, network authentication, IPv4 and IPv6 addressing, DHCP, DNS, WINS, DFS, IPSec, and security. Recommended level of knowledge: A+, Network +, Security +. This course prepares the student for the MCTS exam, a core requirement for Windows MCITP.

Prerequisite(s): Knowledge of networking, basic computer, and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2390C - Installing and Configuring Windows Server

3 Credit Hours
(Fall)

This course is the first of a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total collectively cover implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skill set and tasks across the courses, this course primarily covers the initial implementation and configuration of those core services, such as Active Directory Domain Services, networking services, and initial Hyper-V configuration and is also preparation material for, Exam 70-410: Installing and Configuring Windows Server.

Prerequisite(s): CTS 2163C is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2391C - Administering Windows Server

**3 Credit Hours
(Spring)**

This course is the second in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server environment. While there is some cross-over in skills and tasks across the courses, this course will primarily cover the administration tasks necessary to maintain a Windows Server infrastructure, such as user and group management, network access and data security and is also preparation material for, Exam 70-411: Administering Windows Server.

Prerequisite(s): CTS 2390C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2392C - Configuring Advanced Windows Server

**3 Credit Hours
(Summer)**

This course is the third in a series of three courses which provide the skills and knowledge necessary to implement a core Windows Server Infrastructure in an existing enterprise environment. While there is some cross-over in skill sets and tasks across the three courses this course will primarily cover advanced configuration and services tasks necessary to deploy, manage and maintain a Windows Server infrastructure, such as identity management and identity federation, network load balancing, business continuity and disaster recovery, fault tolerance and rights management. This course is also preparation material, and maps directly to, Exam 70-412: Configuring Advanced Windows Server Services.

Prerequisite(s): CTS 2391C is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2437 - Administering SQL Server Database

**3 Credit Hours
(Offered as needed)**

This course provides students with the skills required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This is preparation for the MCP exam, an elective requirement for Windows MCSA/MCSE.

Prerequisite(s): CTS 1134 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2438 - Advanced SQL Server Database

**3 Credit Hours
(Offered as needed)**

This course provides students with advanced topics required to install, configure, administer and troubleshoot the client-server database management system of Microsoft SQL Server. This course is designed to prepare the student for certification, an elective requirement for the Windows MCSA/MCSE.

Prerequisite(s): CTS 2437 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

CTS 2440 - Introduction to Oracle

3 Credit Hours
(Offered as needed)

An introduction to Oracle and the design and creation of relational databases (using Oracle). Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL) integrated into Stored Procedures, Functions, Packages and Triggers (PL/SQL Programming).

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

DAA 1100 - Fundamentals of Modern Dance

2 Credit Hours
(Fall, Spring,, Summer)

This beginning dance class serves as an introduction to the art of contemporary dance. It includes instruction and practice in basic modern dance techniques, improvisation, dance forms and brief historical overview.

This course may be taken up to four times for credit.

DAA 1101 - Modern Dance II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

This course includes a continued analysis of the modern dance at an intermediate level. Instruction and practice in specific contemporary dance techniques and performance qualities will be stressed.

This course may be taken up to four times for credit.

DAA 1104 - Modern I for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to affect an understanding of the art of the modern dance. It includes a brief history of the dance; instruction and practice in basic dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time. This course maybe taken 4 times for credit.

This course may be taken up to four times for credit.

DAA 1200 - Fundamentals of Ballet

2 Credit Hours
(Fall, Spring, Summer)

This beginning dance course is designed to serve as an introduction to the tradition and discipline of the art of classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, alignment, agility, turnout, control, elevation and sensitivity to line are studied.

This course may be taken up to four times for credit.

DAA 1201 - Ballet II for Non-Majors

2 Credit Hours
(Fall, Spring, Summer)

Intermediate Ballet is designed to train the student in the tradition of the art of the classical ballet beyond the basics. Continued development of the body as an expressive instrument for ballet movement will be stressed as students reach the proficiency level necessary to perform the more complicated steps of an intermediate class.

This course may be taken up to four times for credit.

DAA 1204 - Ballet I for Majors

2 Credit Hours
(Fall, Spring, Summer)

A beginning dance course designed to serve as an introduction to the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1500 - Jazz I for Non-Majors

1 Credit Hour
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken four times for credit.

DAA 1500A - Beginning Jazz

1 Credit Hour
(Fall, Spring, Summer)

This course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms.

This course may be taken up to four times for credit.

DAA 1504 - Jazz I for Majors

2 Credit Hours
(Fall, Spring, Summer)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 1520 - Tap I

1 Credit Hour
(Fall, Spring)

This course includes instruction in tap dance technique and the introduction of time steps commonly used in musical theater auditions.

This course may be taken up to four times for credit.

DAA 1521 - Tap II

1 Credit Hour
(Fall, Spring)

The Tap II dance class includes a more in-depth history of tap dance, instruction and practice utilizing tap and exploring its various styles.

Prerequisite(s): DAA 1520.

This course may be taken up to four times for credit.

DAA 1580 - Musical Theater Dance I

1 Credit Hour
(Summer)

This beginning course covers the study of musical theater dance techniques and styles as related to a specific performance experience, usually Creative Dramatics. Students must participate in designated rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 1680 - Dance Workshop

1 Credit Hour
(Fall, Spring)

This course includes instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

This course may be taken up to four times for credit.

DAA 1681 - Dance Ensemble

1 Credit Hour
(Fall, Spring)

The student shall participate in the preparation and performance of original dance compositions to include Dance Line and Show Choir performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2105 - Modern II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance class is designed to further the student's understanding of the art of the modern dance. It includes continued study in history of the dance; instruction and practice in intermediate level dance techniques, improvisation, and dance forms. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2205 - Ballet II for Majors

2 Credit Hours
(Fall, Spring, Summer)

This dance course is designed to serve as an further training in the tradition and discipline of the art of the classical ballet. Physical development of the body as an expressive instrument for ballet movement will be stressed as strength, flexibility, balance, agility, alignment, turn-out, control, elevation and sensitivity to line are studied. Performance, research and individual projects comprise the remaining class time.

This course may be taken up to four times for credit.

DAA 2505 - Jazz II for Majors

2 Credit Hours
(Fall, Spring)

The course includes a brief history of the jazz dance and instruction and practice in jazz dance techniques exploring popular dance idioms. Performance, research and individual projects comprise the remaining class time. This course may be taken 4 times for credit.

Prerequisite(s): DAA 1504

DAA 2581 - Musical Theater Dance II

1 Credit Hour
(Summer)

The continued study of Musical Theater dance techniques and styles as related to a specific performance experience, usually Summer Ensemble Workshop. Students must participate in rehearsals and performances.

Prerequisite(s): level of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2610 - Dance Composition

2 Credit Hours
(Fall, Spring)

An introduction and practice in the application of compositional tools encourages the student to explore and compose dance. By studying the body's movement in time and space the student will improve technical skills, develop improvisation and choreographic skills and enhance overall dance performance. Previous dance experience is helpful.

This course may be taken up to four times for credit.

DAA 2682 - Dance Workshop II

1 Credit Hour
(Fall, Spring)

This course includes continued instruction and participation in dance as required by specific productions, i.e., Theater/Show Choir.

Prerequisite(s): A demonstration of competency determined by audition.

This course may be taken up to four times for credit.

DAA 2683 - Performance Dance, (Repertory and/or Original Choreography)

1 Credit Hour
(Fall, Spring)

This course includes the continuation of study and participation in all rehearsals of selected works of dance repertory and/or original choreography culminating in public performance.

This course may be taken up to four times for credit.

DAN 1750 - Dance Conditioning

1 Credit Hour
(Fall, Spring)

Dance Conditioning is an excellent course in which to begin your dance training. It is designed to improve

fundamentals for the beginning/intermediate student through daily practice in floor work, yoga, and Pilates exercises. This movement class will get you ready to meet the challenges of other dance classes by toning, strengthening and preparing the body to move.

This course may be taken up to four times for credit.

DAN 2120 - Dance Appreciation

3 Credit Hours
(Offered as needed)

This course is a study of the development of dance as an art form, as entertainment, and how it relates to the history of cultures and societies, emphasizing the evolution of dance in the specific genres such as ballet, modern dance, jazz dance, and world dance forms. Designed to heighten student awareness of dance as an integral part of society and establish an appreciation of dance's impact on the making of art. This course will give the student a foundation level understanding of dance as an art form and its historical and cultural significance. The major periods of dance history, master choreographers, and their works will be explored through lecture, discussion and media presentation. DAN 2120 is not an activity course.

DEP 2004 - Human Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

DEP 2100 - Child Growth and Development

3 Credit Hours
(Fall, Spring, Summer)

This course covers the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, and principles and theories of development.

DSC 1002 - Domestic and International Terrorism

3 Credit Hours
(Offered as needed)

This course is designed to assist students in recognizing and understanding the elements and objectives of terrorism and 4th Generation Warfare and how they affect public safety planning and response operations.

DSC 1004 - Introduction to NRF and NIMS

3 Credit Hours
(Offered as needed)

Designed to inform emergency responders and planners of the key elements in the National Response Framework (NRF) and the National Incident Management System (NIMS) and their relationship to planning and response operations. The curriculum includes classroom exercises.

DSC 1222 - Psychological Management of Disaster Victims

3 Credit Hours
(Offered as needed)

This course introduces students to a general overview of terrorism and the potential psychological effect of terrorist events on victims.

DSC 1552 - Critical Infrastructure Protection

3 Credit Hours
(Offered as needed)

This course introduces participants to the Critical Infrastructure Protection (CIP) process to secure the effective protection of the people, physical entities, and cyber systems that are critical. The CIP course will guide leaders in the systematic protection of critical infrastructures. More basically, the course will introduce decision sequence that assists leaders and future leaders in ultimately determining exactly what really needs protection as well as when. The course will introduce a time-efficient and resource-restrained practice that ensures the protection of only those infrastructures upon which survivability, continuity of operations, and mission success depend.

DSC 1562 - Homeland Security Threat Strategy

3 Credit Hours
(Offered as needed)

This course addresses problems of terrorism from a criminal justice perspective. It is designed to provide students with an understanding of the major issues associated with responding to terrorism in a democratic society. The course focuses on the threat of terrorism to the United States and will review specific strategies to deter terrorist threats to the U.S. The course will assess the relative effectiveness of anti-terrorist activities.

DSC 1631 - Planning Considerations for Terror Prevention

3 Credit Hours
(Offered as needed)

This course introduces participants to various aspects of planning for potential terrorist activity. The student will be introduced to basic principles of emergency management, communications, security threats, and the effects these operations may have on personnel. The student will learn techniques for evaluating their own jurisdiction's vulnerability against terrorist attacks. Students will gain knowledge of the roles and responsibilities of local agencies during terrorism responses. The course introduces participants to various aspects of emergency management of terrorist activity.

DSC 1751 - Homeland Security Policy and Law

3 Credit Hours
(Offered as needed)

This course introduces participants to the major debates about balancing democratic freedoms with security from the Patriot Act to Supreme Court decisions on detention powers. The course provides insight into legal strategies necessary to confront ongoing national security threats. The course examines laws designed to preserve both our security and our democratic way of life.

DSC 2055 - Issues in Disaster Response

1 Credit Hour
(Offered as needed)

This course serves as an introduction to disaster response and mitigation for the first responder. Students will be introduced to legislation that has had a major impact on disaster and incident response, the role of local, tribal, state and federal government response to incident and disaster declarations and a brief introduction to the National Incident Management System, National Response Plan and the Incident Management System.

DSC 2056 - Disaster Response Operations

3 Credit Hours
(Offered as needed)

This course examines the response protocol, logistics, responsibilities, interagency support, and concepts of front end planning involved in preparation for a catastrophic event. Students will be introduced to the development of an emergency response plan that will include concepts such as lookout, awareness, communications, escape, safety (laces), training, and various agency relationships.

DSC 2900 - Development of Unmanned Vehicle Applications

3 Credit Hours
(Fall, Spring, Summer)

Students complete a project that demonstrates excellence by applying the knowledge of unmanned drones gained from the public safety core courses. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

ECO 2013 - Economics I

3 Credit Hours ♦
(Fall, Spring)

This course covers macroeconomics, its basic concepts and principles, national income accounting; fiscal and monetary policy and application, and growth economics. Basic math skills are required.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ECO 2023 - Economics II

3 Credit Hours
(Spring)

This course covers microeconomics, including economic structures, price theory, factor markets, and general equilibrium. It also includes the economics of information, externalities, and other current national and international issues.

Prerequisite(s): ECO 2013 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

EDF 1005 - Introduction to the Teaching Profession

3 Credit Hours

(Fall, Spring)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. An additional fingerprinting cost may be associated with this course. This course is intended for those students planning to enter a bachelor degree program leading to teacher certification (BS Elementary Education, BS Middle Grades Math, or BS Middle Grades General Science). If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

Prerequisite(s): ENC 1101 AND (MAC 1105 or STA 2023)

EDF 1005A - Introduction to the Teaching Profession - A

3 Credit Hours

(Fall, Spring, Summer)

A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. During an eighteen hour field experience, the student will observe and participate in the educational settings of local schools. This course is intended for those students that are not planning to enter a degree program leading to teacher certification. An additional fingerprinting cost may be associated with this course. If used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program, this course requires a minimum grade of "C."

EDF 1006 - Field Experience in Education

1 Credit Hour

(Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department chair.

EDF 1006A - Field Experience in Education

2 Credit Hours

(Offered as needed)

This Educational Field Experience course allows students to work in an educational setting for a semester to meet requirements for admission to the BSE program. This course requires a minimum grade of "C". Current background check (fingerprints) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): permission of department director.

EDF 2085 - Introduction to Diversity for Educators

3 Credit Hours (Fall, Spring)

This course will provide the student with the opportunity to explore personal values and attitudes toward cultural diversity. Designed for the prospective educator, the theoretical component will examine the issues of teaching in culturally diverse classrooms. An eighteen-hour field experience and examination of educational materials will enhance the student's understanding of multiculturalism. An additional fingerprinting cost may be associated with this course. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEC 1001 - Introduction to Early Childhood Education

3 Credit Hours (Fall)

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

EEC 1002 - Early Childhood Program Administration

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

EEC 1201 - Infants and Toddlers

3 Credit Hours (Fall, Spring, Summer)

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for Infant/Toddler.

EEC 1309 - Early Childhood Education Foundations

3 Credit Hours (Fall, Summer, Spring)

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children.

EEC 1401 - The Family In Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

EEC 1601 - Assessment in Early Childhood Education

3 Credit Hours
(Fall, Spring)

Designed to increase objectivity and proficiency in observing and interpreting children's behavior in addition to increase awareness of normative patterns of children from birth through five years of age. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

EEC 1750 - Guidance for Young Children

3 Credit Hours
(Fall, Spring Summer)

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

EEC 1949 - Internship, Early Childhood Education

3 Credit Hours
(Fall, Spring, Summer)

On-the-job training (OJT) in the Associate in Science degree program in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the NWFSC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. NWFSC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Current background check (fingerprinting) as required by the Early Childhood program in which the field experience will take place is required for this course.

Prereq/Corequisites: EEC 1309 or EEC 1201.

EEC 2220 - Language and Literacy Instruction In Early Childhood Education

3 Credit Hours
(Spring)

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children.

Prerequisite(s): EEC 1309

EEC 2222 - Math and Science Instruction In Early Childhood Education

3 Credit Hours
(Spring and as needed)

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies.

Prerequisite(s): EEC 1309.

EEC 2732 - Child Nutrition, Health and Safety

3 Credit Hours
(Fall, Spring, Summer)

Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

EEL 2603C - Robotics-Mechanics and Controls

3 Credit Hours
(Fall)

This course introduces the student to robotics. Instructional topics will include robot classifications, applications, Input/Output (I/O) and sensor interfacing.

Prerequisite(s): ETS 1542C

EET 1015C - Electricity/Electronics I, DC Circuits

3 Credit Hours
(Fall, Spring)

This is the first course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in DC series, parallel, and series/parallel circuits containing common circuit elements with single and multiple sources. Students are introduced to Ohm's Law, Kirchoff's voltage and current Laws, Thieiving's, Norton's, super-position, and maximum transfer of power theorems and their uses in DC circuit analysis. Students will learn how to use a digital multimeter to trouble shoot and analysis DC circuits.

Prerequisite(s): EET 1084C

EET 1025C - Electricity/Electronics II, AC Circuits

3 Credit Hours
(Fall, Spring)

This is the second course required for Electronics Aide certificate. This course introduces the theories, concepts, and relationships of voltage, current, and power in AC series, parallel, and series/parallel circuits containing common circuit elements with single and 3-phase sources. Students will apply Ohm's Law, Kirchoff's voltage and current Laws, Thieiving's, Norton's, super-position, and maximum transfer of power theorems and their uses in AC circuit analysis. Included will be the use of a multimeter and oscilloscope for experimentation with and trouble shooting AC circuits.

Prerequisite(s): EET 1015C

EET 1084C - Introduction to Electronics

3 Credit Hours
(Fall, Spring)

This course introduces the fundamentals, terminology, and applications used in the electronics industry. The topic coverage will include circuit theory principles, electronic components, transistor usage, amplifiers, power supplies, digital logic techniques, and electronic instruments. The course will also include some basic laboratory exercises to strengthen the topic coverage as it pertains to measurement involving both analog and digital circuits.

EET 1141C - Solid State Electronics

3 Credit Hours
(Fall, Spring)

This is the third course required for Electronics Aide certificate. This course introduces the student to the concept, components, and uses of solid state electronics. Topics include semiconductor devices; thyristors and diodes, transistors, amplifiers, power supplies, oscillators, and optoelectronics. The use of capacitors and inductors in solid state electronics will be also covered. The design, set-up, and troubleshooting solid state circuits and devices using various power supplies and function generators will be dispersed throughout the class.

Prerequisite(s): EET 1025C

EET 1180C - Industrial Electronic Troubleshooting

3 Credit Hours
(Fall, Spring)

This course covers troubleshooting procedures for a variety of electronic equipment and circuits common to industrial applications. The student will develop and implement trouble shooting protocols and plans, equipment monitoring plans, a preventive maintenance plan, and select appropriate test and monitoring equipment. Safety in an industrial setting will be stressed and reinforced through a series of lab exercises throughout the course.

Prerequisite(s): EET 1084C

EET 2155C - Linear Integrated Circuits

3 Credit Hours
(Fall, Spring)

This course covers the fundamentals and applications of linear integrated circuits and operational amplifiers. The course covers includes inverting and non-inverting amplifiers, comparators, signal generators, differential and instrumentation amplifiers, operational amplifier specifications, active filters, modulator-demodulator integrated circuits, timers, analog to digital converters (ADC), and digital to analog converters (DAC) and measurement and analysis of linear circuits and devices.

Prerequisite(s): EET 1015C, EET 1025C

EEX 2010 - Introduction to Exceptional Children

3 Credit Hours
(Offered as needed)

Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems, learning disabilities, mental retardation, blind, physically handicapped, gifted, emotional conflicts, and parents of exceptional children.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EGN 1111C - Engineering Graphics

3 Credit Hours
(Fall, Spring, Summer)

Covers the use of instruments, lettering practice; geometric construction; multiview projection and conventions, auxiliary views, section views, axonometric and oblique projections, rotation, patterns and development, and methods of reproduction.

Prerequisite(s): ETD 1102 or equivalent: prerequisite only applies to Architectural Drafting and Design students.

EGN 1130C - Descriptive Geometry

3 Credit Hours
(Fall, Spring, Summer)

Covers basic principles of orthographic projection, auxiliary views and rotation as they apply to points, lines and planes in space; addition of coplanar and non-coplanar vectors; intersections and developments; and selected abstract, axonometric and oblique projection, and practical problems.

Prerequisite(s): EGN 1111C or equivalent.

EME 2040 - Introduction to Technology for Educators

3 Credit Hours
(Fall, Spring Summer)

This course will develop competencies necessary to integrate technology into classroom instruction. Students will survey a variety of instructional technology materials, software, and systems, as well as learn to use these in the classroom environment. This course requires a minimum grade of "C" if used to meet state prerequisite requirements for entry into a Bachelor of Teacher Education program.

EMS 1119C - Emergency Medical Technician

6 Credit Hours
(Offered as needed)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1401L.

EMS 1335 - Emergency Vehicle Operators Course

1 Credit Hour
(Offered as needed)

Students receive basic education and information on the safe and effective operation of emergency vehicles.

Prerequisite(s): permission of the EMS Program Director.

EMS 1337 - Defensive Tactics

1 Credit Hour
(Offered as needed)

Designed to provide EMS personnel with fundamental knowledge of the recognition of aggressive/violent behavior, and use of appropriate verbal and physical skills to control aggressive behavior in the course of providing emergency care.

Prerequisite(s): admission to the Paramedic program or permission of instructor.

EMS 1401L - EMT Lab

6 Credit Hours
(Offered as needed)

An integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): permission of the EMS Director and AHA CPR for the Healthcare Provider

Corequisite(s): EMS 1119C.

EMS 2231C - Paramedic Processes I

5 Credit Hours
(Fall)

First course in the sequence necessary for Paramedic program completion. Designed to integrate concepts and clinical skills learned at the EMT level with advanced life support concepts and skills. Emphasis on patient assessment, pulmonary anatomy and physiology, advanced airway management, pathophysiology and clinical management of shock, medical emergencies and traumatic injuries. Course is consistent with most current Department of Transportation (DOT) curriculum.

Prerequisite(s): admission to the Paramedic program.

EMS 2232C - Paramedic Processes II

5 Credit Hours (Spring)

Second course in the sequence necessary for Paramedic program completion. Integrates and reinforces concepts and clinical skills learned in Paramedic Processes I, with emphasis on pharmacology, cardiology and Advanced Cardiac Life Support (ACLS) skills. Other topics include assessment and management of OB/GYN emergencies, psychiatric emergencies, pediatric emergencies, musculoskeletal injuries and mass casualty situations. Consistent with the most current DOT curriculum.

Corequisite(s): EMS 2436L.

EMS 2233 - Paramedic Processes III

2 Credit Hours (Spring)

The final course necessary for Paramedic program completion. Designed to prepare the student for both Florida State Board and National Registry examinations. Emphasizes the integration of paramedic knowledge, attitudes and behaviors. Course consistent with the most current DOT curriculum.

Corequisite(s): EMS 2425L.

EMS 2342 - Advanced Extrication

1 Credit Hour (Offered as needed)

Focus is on advanced principles of gaining access to and disentanglement of victims of vehicular crashes. Emphasis is placed on victim and rescuer safety. Actual use of available rescue tools is included. Packaging of patients to protect against possible spinal injury is demonstrated and assessed. The course takes place with a mock scene and "junk" cars are used for experience with rescue tools.

EMS 2425L - Paramedic Externship

4 Credit Hours (Spring)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

Corequisite(s): EMS 2233.

EMS 2435L - Paramedic Lab I

5 Credit Hours (Fall)

The clinical and skills laboratory companion course to EMS 2231C. Designed to provide instruction in advanced paramedic skills and the opportunity to apply these skills in the clinical setting. By state rule, the instructor-to-students ratio will not exceed six students to one instructor.

Prerequisite(s): admission to the Paramedic program

Corequisite(s): EMS 2231C.

EMS 2436L - Paramedic Lab II

5 Credit Hours (Spring)

This course is the clinical companion course to EMS 2232C, Paramedic Processes II. It is designed to provide instruction in the advanced paramedic skills and the opportunity to apply them in the clinical setting. By state rule, the instructor-to-student ratio will not exceed six students to one instructor.

Prerequisite(s): EMS 2435L

Corequisite(s): EMS 2232C.

EMS 2438C - Advanced Clinical Internship

2 Credit Hours (Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): EMS 2232C, EMS 2436L and permission of the instructor

EMS 2526 - Twelve-Lead EKG Interpretation

1 Credit Hour (Offered as needed)

Designed for the EMS student. Fundamentals of twelve-lead electrocardiogram (EKG) interpretation. Emphasis on scenario-based and case-based learning that reinforces the concept that 12-lead EKG technology is the best tool for visualization of the surfaces of the heart, identification of sites of ischemia, injury and infarction, as well as various intricate conduction abnormalities.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2552 - Advanced Cardiac Life Support (ACLS)

1 Credit Hour
(Offered as needed)

An intense overview of the guidelines for emergency cardiac care and cardiac arrest management as published by the American Heart Association. Students must successfully pass a written examination and a skills proficiency performance examination to receive the "ACLC Provider" and successfully pass the course.

Prerequisite(s): EMT certificate and CPR for Health Care Providers certification.

EMS 2553 - Pediatric Advanced Life Support (PALS)

1 Credit Hour
(Offered as needed)

Designed for the EMS student. Fundamentals of recognizing infants and children who are at risk for cardiopulmonary arrest, including the strategies that are needed to prevent cardiopulmonary arrest in infants and children and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest.

Prerequisite(s): EMT certificate or permission of the instructor.

EMS 2555 - International Trauma Life Support (ITLS)

1 Credit Hour
(Offered as needed)

Fundamentals of managing traumatic injuries at the basic and advanced levels in accordance with the national Basic Trauma Life Support committee. The recognition and treatment of specific traumatic injuries such as pneumothorax, closed head injury, hemothorax, compensated and decompensated shock, fractures, uncontrolled bleeding, internal injuries of the abdomen and thorax. Emphasis is on rapid assessment, management and transport with discussion on mechanism of injury and kinematics of trauma.

Prerequisite(s): EMT certification or permission from the instructor.

EMS 2940 - Internship: Emergency Medical Services

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

ENC 1101 - English Composition I

3 Credit Hours ♦ ▲ ¶
(Fall, Spring, Summer)

Instruction and intensive practice in expository and argumentative writing including a documented paper. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

▲ Technology-Across-the-Curriculum Course

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 1101L - English Composition I Lab

1 Credit Hour
(Fall, Spring, Summer)

An instructor directed writing workshop designed to improve student's opportunity for success in ENC1101. Students will strengthen writing and grammar skills necessary to master the topics and concepts covered in ENC1101. Areas of focus include, but are not limited to, the following: expository and argumentative writing; appropriate diction; conventions of Standard American English grammar, punctuation, sentence structure; conventions of MLA.

Prerequisite(s): ENC0025 and REA0017 or equivalent with a "C" or better grade, or a score of 100-116 on the PERT, or on an elective basis with a score of 103 or higher on the PERT.

Corequisite(s): ENC 1101

ENC 1102 - English Composition II

3 Credit Hours ¶
(Fall, Spring, Summer)

Interpretative and critical reading of fiction, drama, and poetry. The student will write analytic discourse and research papers as part of the essay process. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of ENC 1101 or an equivalent course with a grade of "C" or better.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENC 2210 - Technical Report Writing

3 Credit Hours
(Spring)

The course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared and evaluated. The course also includes reading and analysis of technical literature as well as oral reporting.

Prerequisite(s): passing score on placement test.

ENG 1001 - Research Papers

1 Credit Hour
(Fall, Spring, Summer)

A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system. This course may be taken four times for credit.

This course may be used as a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. Students may use this course to satisfy deficiency in the Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ENL 2012A - English Literature: Old English through the Enlightenment

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENL 2022 - English Literature: Romantic Period Through the Present

3 Credit Hours ¶
(Offered as needed)

A study of English literature from the Romantic period through the present, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101. (Note: ENL 2012A is not a prerequisite for this course)

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ENT 2931 - Selected Studies in Entrepreneurship

1 Credit Hour
(Spring)

In this course, topics of current interest are presented in group instruction.

ESC 1000 - Earth Science

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides an introduction to materials, processes, and interactions of Earth's global environments – the lithosphere (solid earth), hydrosphere (water earth), atmosphere (gaseous earth), and biosphere (living earth). It also includes a survey of sciences pertaining to the Earth, including basic astronomy, meteorology, oceanography, and geology.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

ESC 1000L - Earth Science Lab

1 Credit Hour
(Fall, Spring, Summer)

Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, and properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

ETD 1102 - Introduction to Technical Drawing

3 Credit Hours
(Spring, Summer, Fall)

A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction.

ETD 1112 - Mechanical Drafting I

4 Credit Hours
(Offered as needed)

The second of a sequence of courses in drafting which includes basic use of instruments, freehand lettering, geometric construction, orthographic projection, sections and conventional revolutions, dimensioning, inking, mechanical lettering, methods of reproduction, and developing computer-aided drafting skills.

Prerequisite(s): ETD 1102 and ETD 1320C or equivalent

ETD 1217 - Fundamentals of Dimensioning and Tolerancing

4 Credit Hours
(Fall, Spring)

A course designed to help students develop the basic fundamentals of dimensioning and tolerancing. Topics include: dimensioning systems such as; metric, decimal, fractional-inch, foot and inch, tolerancing methods, limits and tolerances, tolerancing accumulation, dimensioning practices, and standards fits.

ETD 1320C - AutoCAD I

3 Credit Hours
(Fall, Spring, Summer)

A basic course on the use of AutoCAD Software to include: introduction to AutoCAD, drawing commands, display and inquiry commands, modify commands, dimensioning and annotation, data exchange and output files.

▲ Technology-Across-the-Curriculum Course.

ETD 1340C - AutoCAD II

3 Credit Hours
(Fall, Spring, Summer)

The second course in a series designed to develop skill and proficiency in the use of AutoCAD software to include: additional drawing commands, editing commands, modify commands, advanced display and inquiry commands, advanced dimensioning and annotation, advanced layering, block, attributes and X-Ref, paper space, UCS, data exchange and output files.

Prerequisite(s): ETD 1320C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1355C - AutoCAD 3-D Modeling I

3 Credit Hours
(Fall, Spring)

A basic course in mechanical design using basic computer geometry techniques. Topics will include: orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques.

Prerequisite(s): ETD 1340C or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 1801C - Technical Illustration

3 Credit Hours
(Fall)

The purpose of this course is to help students develop the skills, knowledge, and attitudes necessary to be job entry-level qualified as technical illustrators.

Prerequisite(s): ETD 1112 or EGN 1130C, and ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2150 - Industrial Print Reading

3 Credit Hours
(Fall, Spring, Summer)

The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

ETD 2218 - Geometric Dimensioning and Tolerancing

4 Credit Hours
(Fall, Summer)

An introductory course in geometric dimensioning and tolerancing using the geometric method nationally accepted according to ASMEY 14.5M. Topics covered include: definition and terms, symbols, datum referencing, locational tolerancing, form tolerancing, profile tolerancing, orientation and runout tolerancing, and math for positional tolerancing.

Prerequisite(s): ETD 1217 or equivalent.

ETD 2350C - AutoCAD III

3 Credit Hours
(Fall, Spring, Summer)

An advanced course designed to help students develop proficiency in the area of computer aided drafting and systems drafting. Topics covered include: transfer drawings, digitized drawings, explanatory drawings, multiview projections, exploded assemblies, pictorial drawings, auxiliary views, sections, details, geometric dimensioning and tolerancing, and CADD concepts.

Prerequisite(s): ETD 1340C.

▲ Technology-Across-the-Curriculum Course.

ETD 2357C - Inventor I

**3 Credit Hours
(Spring)**

A basic course in Parametric Solid Design using AutoDesk Inventor Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2358C - Inventor II

**3 Credit Hours
(Summer)**

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using Inventor Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2357C.

▲ Technology-Across-the-Curriculum Course.

ETD 2364C - SolidWorks I

**3 Credit Hours
(Fall)**

A basic course in Parametric Solid Design using SolidWorks Software. Topics include: basic concepts of parametric part sketching 3D part creation, Revolve, Sweep and Lofted features, shell and coil, surface creation, sheet metal and orthographic drawing production.

▲ Technology-Across-the-Curriculum Course.

ETD 2368C - SolidWorks II

**3 Credit Hours
(Spring)**

The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using SolidWorks Software. Topics include: sheet metal modeling, assembly concepts, assembly modeling approach and tools, advanced constraints, motion simulation, adaptive technology and drawing presentation.

Prerequisite(s): ETD 2364C or higher or equivalent.

▲ Technology-Across-the-Curriculum Course.

ETD 2371C - 3D Printing I

**3 Credit Hours
(Fall, Spring, Summer)**

This course will develop elements of creative thinking and problem solving used in the design process, including the

techniques and methods used to construct prototypes and models. In the project aspect of this course, the students select a field of specialization to explore methods and materials in a number of options in industrial environment with the use of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2364C or ETD 1355C or ETD 2357C or permission of instructor.

ETD 2372C - 3D Printing II

3 Credit Hours
(Fall, Spring, Summer)

The student will continue to develop elements of creative thinking and problem solving used in the design process, including the techniques and methods used to construct prototypes and models. In the project aspect of this course, the students expand their knowledge in the methods and materials and of computer simulation, modeling, and rapid prototyping.

Prerequisite(s): ETD 2371C or permission of the instructor.

ETD 2377C - 3D Studio Max I

3 Credit Hours
(Offered as needed)

Course is designed to use 3D Studio in rendering, and animation as a dynamic visualization tool for AutoCAD design images. Upon completion of this course, the user will be able to navigate through the modules of the program, model simple projects, set up scenes for rendering and animation, assign materials to objects, and define simple motion paths, input and output techniques.

Prerequisite(s): ETD 1355C or equivalent.

ETD 2731 - Mechanical Drafting II

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary views, related mathematics, precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 1112 or equivalent.

ETD 2735 - Mechanical Drafting III

4 Credit Hours
(Offered as needed)

A course that continues and completes the student's study of the fundamentals intrinsic to all types of drafting. Topics covered include: isometric, diametric, trimetric, oblique, and perspective projection, descriptive geometry, auxiliary views, related mathematics, and precision dimensioning developing computer-aided drafting skills.

Prerequisite(s): ETD 2218 and ETD 2731 or equivalent.

ETD 2802C - Technical Illustration II

3 Credit Hours
(Spring)

The purpose of this course is to help students develop advanced skills, knowledge, and attitudes necessary as technical illustrators, to include oblique, and axiometric projections, perspective and exploded pictorial drawings, and related techniques.

Prerequisite(s): ETD 1340C or equivalent.

ETD 2905 - Independent Study – Drafting

1 Credit Hour
(Fall, Spring, Summer)

Practical treatment of special geometry, graphics, and design with emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing.

Prerequisite(s): EGN 1111C and ETD 1112 or permission of instructor.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

* This course may be taken up to four times for credit.

ETG 1941 - Internship

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): permission of the instructor

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

ETI 1420 - Properties of Materials and Processes

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with an introduction to the basic properties of materials, principles and processes in the metal working, tools and

machinery involved in the manufacture of metals. This course covers non-chip producing and chip producing manufacturing processes.

ETI 1710 - Occupational Safety

3 Credit Hours
(Spring, Summer, Fall)

A basic course in occupational safety and health covering such topics as: theories of accident causation, workplace hazards, hazard analysis and prevention, accident reporting, OSHA, ergonomics, product safety, workers' compensation, and stress on the job.

ETI 2110 - Total Quality Tools

3 Credit Hours
(Fall)

This course prepares students to effectively solve business/process/product problems, track process performance, find process and product improvement opportunities, and validate improvements made, using the necessary intellectual tools and procedures including: Five-S, flow charting, Pareto analysis, cause and effect diagrams, histograms, check sheets, scatter diagrams, stratification, statistical process control, failure mode and effects analysis.

ETI 2408C - Welding Fundamentals

3 Credit Hours
(Summer)

This course teaches basic welding processes and techniques for entry-level maintenance technician positions. Students learn welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting.

ETI 2419C - Advanced Concepts of CNC Machines and CNC Machining Practices

3 Credit Hours
(Offered as needed)

This course is designed to provide the student with advanced concepts in CNC machines and CNC machining to include: theory, operation, setup, safety, and practices.

Prerequisite(s): PMT 2261C or PMT 2262C

ETM 1005C - Basic Mechanical Operations

3 Credit Hours
(Spring)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

ETM 1010C - Mechanical Measurement and Instrumentation

3 Credit Hours
(Fall, Spring)

This course provides the foundation for mechanical and electronic measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, height gages, digital multimeters and other types of measuring equipment.

ETM 1315C - Hydraulics & Pneumatics Fundamentals

3 Credit Hours
(Spring)

This course introduces the student to basic hydraulic and pneumatic fundamentals. Instructional topics will include components, fluid pressure and flow and basic circuit design and application.

ETS 1511C - Motors and Controls

3 Credit Hours
(Fall, Spring)

This course explores the theory and application of AC and DC motors, types of single-phase motors, three-phase power, three-phase motors, remote and local control, forward and reversing motor starters, and various motor control circuits. Wiring and troubleshooting exercises of electric three-phase motor control circuits are emphasized in a wide range of applications.

Prerequisite(s): EET 1084C

ETS 1542C - Introduction to Programmable Logic Controllers

3 Credit Hours
(Fall)

This is an introductory course in Programmable Logic Controllers (PLCs.) The student will learn basic concepts with a focus on programming and practical applications.

Prerequisite(s): EET 1084C

EVR 1001C - Environmental Science

4 Credit Hours ♦
(Offered as needed)

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

EVR 1940 - Internship, Environmental Science

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum grade of "B" in any college level science course and permission of instructor.

FFP 1140 - First Responder for Public Safety Personnel

3 Credit Hours
(Offered as needed)

This course introduces the student to the skills and techniques used for first response to medical emergencies. Classroom instruction includes a variety of medical related topics encountered by public safety personnel. Practical exercises and scenarios are included to enhance classroom instruction and skill development.

FFP 1301 - Fire Service Hydraulics

3 Credit Hours
(Offered as needed)

Introduction to the study and characteristics of hydrostatics and hydrodynamics in the fire service; to include basic hydraulic measuring units, facts, theories, and formulas for problem solving. The course covers the relationship between flow and pressure and mathematical hydraulic formulas.

FFP 1505 - Fire Prevention Practices

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1540 - Private Fire Protection Systems

3 Credit Hours
(Fall, Spring, Summer)

This course is a survey of the principles of fire prevention and investigation. It includes a study of fire hazards in various occupancies; a review of fire prevention codes; a study of procedures and techniques of fire prevention inspection, to include surveying and mapping, recognition and elimination of fire hazards, public relations, methods of

determining the area of fire origin, fire cause, fire spread and location and preservation of evidence.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1702 - Principles of Emergency Services

3 Credit Hours
(Fall, Spring, Summer)

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1740 - Fire Service Course Delivery

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1800 - Disaster Education for Individuals and the Community

3 Credit Hours
(Offered as needed)

This course provides a study of the design, development, and delivery of public disaster safety education and programs including: methods of identification of disaster safety programs, the selection of target programs and strategies of affect reduction, methods of designing and implementing information and educational programs, and methods of evaluating a program's impact. Studies include theoretical and practical skills training in individual, group, and mass media communications, instructional skills, planning priorities, and evaluation techniques.

FFP 1801 - Introduction to Emergency Management Administration

3 Credit Hours
(Offered as needed)

This course will discuss emergency management practices and how they relate to natural and man-made disasters. It is designed to help the student develop an understanding of overall emergency management principles, practices, and standards in the local, national, and international environments.

FFP 1810 - Firefighting Tactics and Strategy I

3 Credit Hours
(Fall, Spring, Summer)

This course is a study of the principles utilized on the fire ground for maximum manpower and equipment utilization; fire ground administration starting with a small fire on up through major conflagrations. Emphasis will be on developing thinking skills in relation to crises.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 1826 - Incident Management

3 Credit Hours
(Offered as needed)

This course contrasts the major forms of Incident Management/Incident Command Systems. It illuminates these differences and offers a fresh perspective on the concepts on which these systems are founded in order to make them more accessible and user-friendly. It bridges the gap between their theoretical and academic foundations and their real-world applications, and makes them more applicable to the professional's daily needs.

FFP 1881 - Emergency Management Leadership

3 Credit Hours
(Offered as needed)

This course provides the student with the knowledge and skills necessary for effective interpersonal relationships, including conflict management and the use of power and influence as they apply to emergency administration and leadership. It addresses the budget process and related administrative duties of an emergency management program manager.

FFP 1890 - Emergency Management Principles for Tourism and Hospitality Industry

3 Credit Hours
(Offered as needed)

This course analyzes emergency management functions and responsibilities within the tourism and hospitality industry. Particular emphasis is placed in the areas of administration, organization, communications, and human relations. Students will learn how historical mistakes can influence human response to disaster situations, and some of the current legal and human challenges posed when dealing with disasters.

FFP 2120 - Fire Service Building Construction

3 Credit Hours
(Fall, Spring, Summer)

The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques which have wide application in teaching situations, as well as devices for specific areas. Also stressed are measuring teaching effectiveness, the use of media and visual aids.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2610 - Fire Behavior and Combustion

3 Credit Hours
(Fall, Spring, Summer)

Study of cause and origin of fires with emphasis on fire inspector's or fire officer's role in the investigation process. The course deals with determination of fire cause and origin, collection of evidence, and investigator's preparation for trial.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2720 - Company Officer

3 Credit Hours
(Fall, Spring, Summer)

Designed to assist fire officers in solving the varied problems and situations they will be required to manage effectively in today's ever changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation, and small group dynamics.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2770 - Ethical and Legal Issues for the Fire Service

3 Credit Hours
(Fall, Spring, Summer)

This course teaches the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. It also includes labor relations, human rights and diversity, conflicts of interest and frameworks for ethical decision-making.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2780 - Fire Department Administration

3 Credit Hours
(Fall, Spring, Summer)

The course is designed to present the principles of management theory, and its application in the fire service. The course is intended for officers whose area of responsibility encompasses long and short range planning, budgeting and administration.

Prerequisite(s): FFP 0010 and FFP 0020

FFP 2820 - Emergency Preparedness

3 Credit Hours
(Offered as needed)

This course teaches all aspects of emergency preparedness and planning related to natural and man-made disasters, and basic principles of emergency management. Planning concepts and the planning process will be discussed.

FFP 2823 - Technical Applications in Emergency Management

3 Credit Hours
(Offered as needed)

This course explores issues and problems associated with the use of technology in emergency management. It examines strategies to overcome these issues and problems. Some of the subjects treated are use of the Internet, spatial analysis applications in vulnerability analysis, decision support systems, and emerging technologies.

FFP 2834 - Societal Issues in Disaster Management

3 Credit Hours
(Offered as needed)

This course examines human response to disaster events, including political and economic factors influencing vulnerability. It examines how individuals and institutions make decisions at all levels of disaster response, it is an introduction to current research pertaining to the sociological aspects of disaster, and it will provide increased awareness of the potential and difficulties in using social science research as a basis for modifying public policy.

FFP 2841 - Contingency Planning for the Private Sector

3 Credit Hours
(Offered as needed)

This course is designed to assist students in developing effective public sector plans by using the National Incident Management System and the Incident Command System templates. The curriculum includes case studies and development procedures for private sector logistics management and employee support planning.

FOS 2201 - Food Service Sanitation Management

3 Credit Hours
(as Needed)

This course acquaints students with the Food and Drug Administration's Food Code as well as the challenges and opportunities facing hospitality managers in the area of sanitation management. The class presents a systems approach to sanitation management, utilizing the Hazard Analysis Control Point Program (HACCP), and provides a basic understanding of quality sanitation management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FRE 1120 - French I

4 Credit Hours ♦
(Fall)

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

FRE 1121 - French II

**4 Credit Hours
(Spring)**

Pronunciation and grammatical structures of French, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): FRE 1120 or an equivalent course with a grade of “C” or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

FSS 1001 - Culinary Techniques

**3 Credit Hours
(Spring)**

Emphasis in this course will be placed on the basic methods and chemistry of cooking. Students study ingredients, cooking, theories, terminology, equipment, technology, weights and measures, formula conversions and work on cooking skills and procedures.

Corequisite(s): FSS 1202L

FSS 1120 - Food and Beverage Purchasing

**3 Credit Hours
(Spring)**

Students will learn the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading and estimating, selecting, receiving and storing foods and beverages, as well as the practical application in writing specifications and in developing purchasing techniques.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 1202L - Food Production I

**3 Credit Hours
(Fall)**

Students will acquire knowledge and skill in the preparation of food. Included are basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices.

Prerequisite(s): FOS 2201

Corequisite(s): FSS 1001

FSS 1221L - Food Production II

**3 Credit Hours
(Fall)**

Students will focus on the knowledge and preparation of meats, poultry, seafood, as well as starches, fruits and

vegetables. Students will learn to prepare menus for special dietary needs. This course will utilize all dry and moist methods of cooking. Menu selection and balance will be studied. The course emphasizes safety and sanitation procedures.

Prerequisite(s): FSS 1202L

FSS 1246L - Baking and Pastries I

3 Credit Hours
(Summer)

Students apply the fundamentals of baking science and pastry preparation to produce a variety of bread products and pastries. Special emphasis is given to the application of advanced techniques in bakery management and the use and care of equipment found in bake shops. Preparation of breads and rolls, classical cakes and icings. Student must pass written and practical baking examination covering a variety of techniques and procedures.

Prerequisite(s): FOS 2201

FSS 1250 - Dining Room Management

3 Credit Hours
(Spring)

The various types of service appropriate to coffee shops, dining rooms, luncheons, banquets, and buffets. The relationship between menu, equipment, supplies, merchandising, and personnel and patron acceptance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2100 - Food Plans and Menu Preparation

3 Credit Hours
(Spring)

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control. Students will study and prepare menus supporting the various food service and beverage industries.

FSS 2240L - Classical Cuisine

3 Credit Hours
(Fall)

Students prepare and learn the skills and management theories involved in classical dishes. Concentration is on the basics of classical cuisine, such as stocks, soups, and sauces. Attention is given to the management tasks of portion control, costing and presentation. Special emphasis is given to classics such as emulsion sauces, thickening agents, and sauces derived from the Mother sauces. Student must successfully pass written and practical examination covering a variety of techniques and procedures.

Prerequisite(s): FSS 1221L

FSS 2242L - International and Regional Cuisine

**3 Credit Hours
(Spring)**

Emphasis is placed on learning to use various condiments and seasonings that are indigenous to different parts of the world in food preparation. Topics may include Far East cuisine, Middle Eastern, Mediterranean, North African cuisine, and continental cuisine. Lectures, demonstrations and preparations will also cover American regional cooking. Student must successfully pass written and practical examination covering a variety of cooking techniques.

Prerequisite(s): FSS 1221L

FSS 2251 - Food and Beverage Management

**3 Credit Hours
(Summer)**

An application of principles in commercial and institutional food and beverage facilities including marketing, menu development, effective cost control in purchasing, pricing, labor and service technique. Procedure, approaches and techniques of management are explored and developed as they relate to commercial and institutional food and beverage facilities and personnel.

FSS 2284 - Catering, Banquet and Event Management

**3 Credit Hours
(Spring)**

Students will be taught the logistics of preparation, production, transportation, and implementation of the catered event, including analysis of typical banquet/event contracts. Students learn to determine cost of the project. Emphasis is given to menu planning for various types of banquets, theme buffets, and physical management of floor lay-out and table setup. Training techniques for supervisors in dining room and banquet service is practiced. Development of stewarding and production checklists is practiced.

FSS 2500 - Food and Beverage Cost Control

**3 Credit Hours
(Fall)**

Emphasis given to methods of menu pricing, systems of controlling and accounting for food and beverage costs and methods of controlling sales income, through cost control systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

FSS 2942 - Culinary Internship

**3 Credit Hours
(Spring)**

The Program Director has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course provides a planned work-based experience that will provide students with an opportunity to fine-tune skills learned in coursework and enhance workplace skills through supervised practical experiences related to their career objectives. Internship requires a minimum of 135 clock hours of work. May be repeated for credit, but grade forgiveness cannot be applied.

Prerequisite(s): Satisfactory completion of all General Education Classes, a minimum 2.0 institutional or overall GPA; and complete FSS 1202L , HFT 1000 , and FSS 1221L with a grade of "D" or better.

GEA 1000 - World Regional Geography

3 Credit Hours ♦
(Offered as needed)

The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

GEB 1011 - Introduction to Business

3 Credit Hours
(Fall)

Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1214 - Business and Supervision Terminology

2 Credit Hours
(Fall)

This course is designed for students to achieve mastery of the special vocabulary, jargon, and concept terminology associated with general business and supervision in the modern workplace. Students will apply the terms in common workplace scenarios and hypothetical situations, as well as in standard written documents and assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 1940 - Internship - Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Active enrollment in an appropriate technical degree program and permission of the instructor. Knowledge of basic computer and keyboarding skills are strongly recommended.

This course may be taken up to two times for credit.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

GEB 1942 - Internship Business

1 Credit Hour

(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

GEB 2430 - Business Ethics

3 Credit Hours

(Fall, Spring)

This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2947 - Academic Learning Field Studies I

1 Credit Hour

(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2948 - Academic Learning Field Studies II

2 Credit Hours

(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 2949 - Academic Learning Field Studies III

3 Credit Hours

(Offered as Needed)

This course gives students the opportunity to understand the relationship of theory to practice through participation in a service-learning experience.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 1040C - Introduction to Geographic Information Systems

3 Credit Hours

(Offered as Needed)

This course will provide students with an introduction to Geographic Information Systems (GIS). Lectures will include: What is GIS, GIS applications, fundamentals such as map projections, vector versus raster data models, creating and maintaining geographic databases, spatial analysis and modeling, cartography and map production. Lab Sessions will include the hands on use of the ArcGIS software. Students will receive a 180-day version of the software with their textbook that they can use at home to complete assignments.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

GIS 2401 - GIS Applications in Social Science

3 Credit Hours

(Offered as Needed)

This course surveys the use of GIS for solving spatial problems in the social sciences. Examples from the fields of health, economic geography and real estate, housing, transportation, criminology, among others are used to illustrate how spatial techniques are used to address problems in a GIS environment. Special consideration will be given to the data needs of such operations, the implementation of methods in a GIS environment, and understanding the spatial assumptions and issues that underpin analyses.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

GLY 2010C - Principles of Geology I

4 Credit Hours

(Fall, Spring)

Survey of the composition and dynamic processes of the solid Earth. Topics include planetary geology, mineralogy and petrology, volcanism, surface environments and processes (ocean floor, coastlines, rivers, karst, glaciers, deserts), seismology, surface deformation, Earth's interior, plate tectonics, and mountain formation. Laboratory exercises in mineral and rock identification, interpretation of geological landforms using topographic maps, earthquakes, and basic field methods. Local or regional fieldtrips offered.

GLY 2100C - Principles of Geology II

4 Credit Hours
(Fall, Spring)

Survey of the physical and biological history of the Earth. Course is divided into two parts. First is a review of common minerals, rocks, and fossils; the use of stratified sedimentary rocks to reconstruct past environments and climates; and the theory of plate tectonics. Second is an overview of the origin and early evolution of the Earth, tectonic formation of continents and oceans, and life through time (first appearance of life, early life in the ocean, Age of Dinosaurs, the Great Ice Age, and the appearance of the first humans). Field and laboratory work in mineral, rock, and fossil identification, description of stratigraphic sections in the field, and geologic map construction and interpretation. Local or regional fieldtrips offered.

GLY 2601C - Introduction to Paleontology

4 Credit Hours
(Fall or Spring)

This course is a survey of prehistoric life. Topics include fossilization, systematics, evolution, ecology, extinction, and the geological history of life. Laboratory work covers the anatomy, classification, and ecology of major phyla of both extinct and extant organisms, including monerans, protists, plant, macroinvertebrates, and vertebrate animals. The course involves local and regional fossil collecting trips.

GRA 1151C - Illustration I

3 Credit Hours
(Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

▲ Technology-Across-the-Curriculum Course.

GRA 1152C - Illustration II

3 Credit Hours
(Offered as needed)

An advanced graphic design course building upon the skills covered in Illustration I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to an appropriate high quality digital camera is required.

Prerequisite(s): GRA 1151C.

▲ Technology-Across-the-Curriculum Course.

GRA 2140C - Multimedia I

4 Credit Hours
(Fall, Spring, Summer)

An advanced course covering the development of multimedia projects incorporating a variety of digital media elements. Students will learn an industry standard digital video editing application and the aesthetic and technical considerations involved in content acquisition. Access to a miniDV camcorder suggested.

Prerequisite(s): ART 2602C, GRA 1151C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2141C - Multimedia II

4 Credit Hours
(Offered as needed)

An advanced course covering principles of design and information architecture surrounding interactive multimedia presentations. Students will learn an industry standard interactive DVD media authoring software application. Students will produce a finished interactive DVD.

Prerequisite(s): GRA 2140C.

▲ Technology-Across-the-Curriculum Course.

GRA 2190C - Graphic Design I

3 Credit Hours
(Offered as needed)

An intermediate Graphic Design course that focuses on using an industry standard page layout software application. Students will be exposed to the ideas and aesthetics involved in the production of print publications. Access to a high quality digital camera required. It is recommended that students take PGY 1801C at the same time or prior to taking this course.

▲ Technology-Across-the-Curriculum Course.

GRA 2191C - Graphic Design II

3 Credit Hours
(Offered as needed)

An advanced Graphic Design course covering the aesthetics and challenges associated with producing complex multi-page printed communications. Access to an appropriate high quality digital camera required.

Prerequisite(s): GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

GRA 2900 - Independent Study – Graphic Art

1 Credit Hour
(Offered as needed)

This course covers the practical treatment of Graphics/Printing Technology. Emphasis is on individual work projects.

Prerequisite(s): GRA 1151C or PGY 1801C

GRA 2905 - Independent Study – Graphic Design

1 Credit Hour
(Offered as needed)

The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

Prerequisite(s): GRA 1151C or PGY 1801C

▲ Technology-Across-the-Curriculum Course.

GRA 2950C - Advanced Graphic Projects

4 Credit Hours
(Offered as needed)

An advanced Graphic Design course addressing common Graphic Design problems. Students will explore advanced software application functionality and creative, aesthetic, and portfolio development. Access to a high quality digital camera required.

Prerequisite(s): ART 2602C, ART 2603C, GRA 1151C, GRA 2190C, PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

HFT 1000 - Introduction to Hospitality Management

3 Credit Hours
(Fall)

This course is an overview of the hospitality industry, and the many different segments of the hospitality and tourism segments are discussed. Scope, size and industry trends are examined. Theories, examples and industry case studies are used to provide students with examples of problem solving tools of management. Basic industry terminology and management concepts are studied. The important role of service is stressed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 1250 - Hotel and Resort Operations

3 Credit Hours
(Spring)

This course acquaints students with the operation of a hotel, motel and resort including front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage.

HFT 1300 - Managing Housekeeping

3 Credit Hours
(Fall)

Provides an overview of the fundamentals of housekeeping management. Describes management functions, tools, and practices required in today's lodging and institutional housekeeping departments.

HFT 1410 - Front Office Management

3 Credit Hours
(Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

HFT 1500 - Marketing and Sales in the Hospitality Industry

3 Credit Hours
(Fall)

How to sell and promote the many services the food service/lodging industries offer guests. How to operate a sales and convention department.

HFT 2210 - Hospitality Management

3 Credit Hours
(Spring)

Training in the techniques involved in the supervision of employees, developing sound relations with other departments, group discussions, and methods of improvement and development of cost consciousness. Job Analysis and job description techniques are developed. The course explores issues that make managing tourism and hospitality (T&H) businesses different to businesses in other sectors. These issues are faced by small and large T&H businesses alike: from owner-operator cafés, motels or tourism businesses to multi-national hotel chains, international airlines or tour companies.

HFT 2223 - Human Relations and Supervisory Development

3 Credit Hours
(Fall)

Designed to provide specific application of proven training systems and methods for managers in the hospitality industry.

HFT 2600 - Hospitality Law

3 Credit Hours
(Offered as needed)

Nature and function of our legal system as it applies to the operation of an INN. Innkeeper-guest relationship, contracts, torts, civil rights and insurable risks are emphasized.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2940 - Hospitality Internship

1 Credit Hour
(Offered Fall, Spring, Summer)

This course guides students through all the skills including directing the activities and solving the complex problems, needed to properly manage the front office of a hotel/motel/resort. The course also acquaints students with the operation of all the departments as they apply to their primary responsibility of selling rooms and serving guests.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2941 - Hospitality Internship

2 Credit Hours

(Offered Fall, Spring, Summer)

This course consists of on-the-job experience supplied by the hotel-motel-resort- restaurant industries. Job placement will be dependent upon the availability of participating hospitality institutions. The course consists of 60 hours per semester of on-the-job instruction accompanied by a seminar class.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HFT 2942 - Hospitality Internship

3 Credit Hours

(Offered Fall, Spring, Summer)

This course, an extension of Hospitality Internship (HFT2941), consists of on-the-job work experience supplied by the hotel, motel, resort and restaurant industries. Students will concentrate on 3 specific areas or functions that are career-goal oriented. Job placement will be dependent upon availability of participating hospitality institutions. The course consists of 90 hours of on-the-job instruction.

Prerequisite(s): HFT 1000 - Introduction to Hospitality Management **3 Credit Hours**
and FOS 2201 - Food Service Sanitation Management **3 Credit Hours**

HIM 1000 - Health Information and Delivery Systems

3 Credit Hours

(Fall, Spring)

Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1012 - Health Care and Legal Compliance

3 Credit Hours

(Fall, Spring)

In-depth study of federal, state, local laws governing preparation, and use of the healthcare record in the healthcare delivery system.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1432 - Pathopharmacology

3 Credit Hours
(Fall)

Introduction to the nature, cause, and treatment of disease entities and the body's defense mechanisms. Commonly used drugs will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 1442 - Pharmacology for HIM Professionals

2 Credit Hours
(Offered as needed)

Pharmacology for HIM Professionals provides an overview of the pronunciation, spelling, actions and side effects of the most commonly prescribed medications. The course will examine pharmacological terms, abbreviations, and symbols used by healthcare providers to write prescriptions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2253 - CPT Coding - Part 1

3 Credit Hours
(Spring)

Instruction and practice in basic CPT coding conventions, principles of classifying physician services using current procedural terminology (CPT-4), APC, and auditing procedures. Ethical standards of practice will be analyzed.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

(Previously listed as HIM1253)

HIM 2272 - Healthcare Reimbursement

3 Credit Hours
(Summer)

Emphasis on billing regulations for the State of Florida. Course content includes LMRPS, Workers' Compensation laws, Florida Medicare, and claims for automobile accident injuries.

Prerequisite(s): HIM 2253 and HIM 2724 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2291 - CPT Coding Part 2

3 Credit Hours
(Spring)

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, inpatient and outpatient prospective payment systems, encoding software and RBRVs.

Prerequisite(s): HIM 2253 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2724 - ICD Coding Part 1

**3 Credit Hours
(Fall)**

This course provides a foundation using ICD-10-CM/PCS coding conventions, rules, methodology and sequencing, data sets, documentation requirements, and coding resources.

Prerequisite(s): HSC 1531 and HIM 1432 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

Prereq/Corequisites: BSC 2020C OR (BSC 1085C AND BSC 1086C)

HIM 2729 - ICD Coding Part 2

**3 Credit Hours
(Fall)**

This course focuses on assigning appropriate ICD, DRG, and Level II (HCPCS) codes to a wide range of original source medical documents. This course increases the quality of code selection by applying the decision process in problem solving using well-defined medical record review methods and guidelines. Ethical practices will be discussed.

Prerequisite(s): HIM 2724 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

HIM 2815C - Professional Practice Experience

**3 Credit Hours
(Summer)**

Working in a simulated, online environment, students will endeavor to code and bill using nationally recognized, American Health Information Management Association (AHIMA) simulation software.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

HIM 2931C - Special Topics in Health Information Technology

**1 Credit Hour
(Summer)**

This course is a review of skills and work processes to support classification and coding to become nationally certified in-field. Effective test-taking strategies for certification exams and employability skills will be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

Corequisite(s): HIM 2291 and HIM 2729

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

HLP 1081 - Wellness: Practice and Theory

**3 Credit Hours
(Fall, Spring, Summer)**

A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HSA 1100 - Introduction to Health Care

**3 Credit Hours
(Fall)**

This course provides an overview of the United States Healthcare System, including the economic, social, political, and technological forces that shape the industry. The role of state and federal government and regulatory agencies in healthcare delivery is examined. The fundamental roles and responsibilities of healthcare team members are surveyed. Healthcare safety, security, and infection control procedures will also be discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1100 - Health Education

**3 Credit Hours
(Spring)**

A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HSC 1400 - First Aid

**3 Credit Hours
(Spring)**

Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured oral poisoning and other medical emergencies.

HSC 1531 - Medical Terminology

3 Credit Hours
(Fall)

An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

HUM 1020 - Humanities – Introduction

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

A chronological survey of techniques and forms related to art, dance, film, literature, music, philosophy, religion and theater. Art works and selected readings are utilized as much as possible. The course includes Writing-Across-the-Curriculum and Speaking-Across-the-Curriculum. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 1905A - Independent Study – Arts and Humanities

1 Credit Hour
(Fall, Spring, Summer)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): approval from department chair, a passing score on the standardized placement test measuring

communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

HUM 2250 - Humanities – A Contemporary Perspective

3 Credit Hours ♦ † ¶
(Fall, Spring, Summer)

This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2700 - Humanities – Foreign Study

3 Credit Hours ♦ ¶
(Offered as needed)

A variable humanities content course designed to allow students first-hand learning experiences outside the United States. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

HUM 2920 - Humanities Colloquium

1 Credit Hour
(Fall, Spring, Summer)

Humanities Colloquium is a lab designed to introduce students to critical visual and listening skills to become an intelligent arts consumer. Initial lecture sessions are devoted to discussions of the elements of analysis of art works, music pieces, theater performances, and dance presentations. Students will be required to attend selected NWFSC Visual and Performance Arts presentations and to write a short critical review of each. Topics may vary.

Prerequisite(s): placement test may be required.

HUM 2930 - Humanities – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

HUN 2201 - Nutrition

3 Credit Hours
(Fall, Spring, Summer)

The role of nutrients in maintenance of physiological well-being. Application of nutrition principles to the individual and family as well as to some selected problems.

ISC 1003 - Natural Disasters – Causes, Consequences, Human Response

3 Credit Hours
(Fall, Spring, Summer)

This interdisciplinary course investigates natural catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, hurricanes and floods. This class will use an environmental studies approach to examine how modern society exacerbates the damage caused by these natural phenomena and methods to mitigate human suffering. The student will gain an appreciation of humankind's relationship to the natural environment.

ISS 1905 - Independent Study – Social Science

1 Credit Hour
(Offered as needed)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the social sciences for which present course availability is limited.

This course may be taken up to four times for credit.

LEI 1544 - Outdoor Recreation Management

3 Credit Hours
(Fall, Spring)

This course examines the fundamental influences on outdoor recreation. The course also provides information on hazards, conservation considerations, and safety factors in planning and organizing outdoor recreations. Basic first aid, CPR, and AED training is incorporated as it pertains to outdoor recreation. Field trips may be assigned as warranted.

LIN 1670 - Writing and Grammar

3 Credit Hours
(Fall, Spring, Summer)

The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. This course is strongly recommended for students who have completed Developmental Writing, those who want a preparation for Composition, or those who score 103-116 on the PERT.

Prerequisite(s): A passing score on the standardized placement test measuring communications/verbal achievement, successful completion of any required developmental English coursework with a minimum grade of "C", or exemption from placement testing.

LIS 1001 - Library Skills

1 Credit Hour
(Offered as needed)

A self-paced course on how individual students can make effective and efficient use of library resources. Students develop the basic information literacy skills necessary for college coursework, general research, and for lifelong learning in an information centered society.

LIS 2004 - Introduction to Internet Research

1 Credit Hour ▲
(Offered as needed)

Introduction to Internet Research is a one-credit hour course offered only online. The course focuses on methods of accessing information resources available through the internet. Students learn to design search strategies, retrieve, evaluate, and cite internet resources.

Prerequisite(s): a full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

▲ Courses listed with this symbol address NWFSC's **Technology-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic technology use.

LIT 2090 - Contemporary Literature

3 Credit Hours ♦ ¶
(Offered as needed)

Studies in contemporary literature, focusing on comments on modern man. May be used as Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2100 - World Literature: Antiquity through the Renaissance

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from antiquity through the Renaissance, that reflect cultural and intellectual heritage. May be used as a Humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet the Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): ENC 1101.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2120 - World Literature: Renaissance through the Present

3 Credit Hours ♦ ¶

(Offered, Fall, Spring, Summer)

Designed to encourage students to know and appreciate the great literature that helps to mold their thinking and everyday living. Includes, without regard to national origin, those masterpieces of world literature, from the Renaissance to the present, that reflect cultural and intellectual heritage. May be used as a humanities credit. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101. (Note: LIT 2100 is not a prerequisite for this course)

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

LIT 2335 - Introduction to Children's and Adolescent Literature

3 Credit Hours ♦

(Offered as needed)

Designed to explore the range and diversity of the children's literary canon, surveying the historical development of children's and adolescent literature (pre-school to eighth grade) and the construction of socio-cultural influences. While the focus is predominantly on classic works from the tradition of American and British fiction, poetry, folklore and fairy tales, drama, and picture books, the course nonetheless addresses multi-cultural issues and texts in order to broaden the cultural vision provided by the literary study. This course will be a General Education elective, but will not meet the Humanities or English General Education requirements. Course has international/diversity focus for Teacher Education program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

LIT 2603 - Literature of War in the 20th Century

3 Credit Hours ♦
(Offered as needed)

Designed to investigate the historical, psychological, and universal issues that face societies in times of war, through analysis of a range of literary genre and texts, including fiction, poetry, drama, letters, and memoirs focusing on wars of the modern era. The approach is global, but concentrates heavily on the war experiences of the United States. This course will be a General Education elective, but will not meet Humanities or English General Education requirements. Course has International/Diversity focus for Teacher Ed program common prerequisites.

Prerequisite(s): ENC 1101.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

MAC 1105 - College Algebra

3 Credit Hours ♦
(Fall, Spring, Summer)

This is a function-based college algebra course which includes the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAT 1033A or equivalent with a "C" or better or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 1114 - Trigonometry

3 Credit Hours
(Fall, Spring, Summer)

This is the second course in a Pre-calculus sequence which includes the following topics: definitions, graphs, and properties of the six trigonometric functions and their inverses; trigonometric identities; solving trigonometric equations; solving right and oblique triangles and applications; complex numbers; vectors; and the polar coordinate system. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1140 with a grade of "C" or better or equivalent; or appropriate placement score. This course may be taken concurrently with MAC 1140 with special permission of the Mathematics Department.

MAC 1140 - Pre-Calculus Algebra

3 Credit Hours
(Fall, Spring, Summer)

This is the first course in a two-course Pre-calculus sequence which includes the following: equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations; matrices and determinants, mathematical proof techniques, including mathematical induction; binomial theorem; sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 with a grade of "C" or better, or equivalent; or appropriate placement score.

MAC 2233 - Business Calculus

3 Credit Hours
(Fall, Spring, Summer)

This is a calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 with a grade of "C" or better; or completion of MAC 1105 with a grade of "C" or better, and a "C" or better in another Gordon Rule Mathematics course; or appropriate placement score.

MAC 2311 - Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a three-course sequence. The course covers the following: limits and continuity, rules of differentiation, chain rule, derivatives of trigonometric, inverse trigonometric, logarithmic, and exponential functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms, and maxima/minima problems, mean value theorem, Rolle's theorem, definite and indefinite integrals, Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Completion of MAC 1140 and MAC 1114 with a grade of "C" or better or equivalent; or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MAC 2312 - Calculus II

4 Credit Hours
(Fall, Spring, Summer)

This is the second course in a three-course sequence. The course covers the following: techniques for finding areas, volumes, arc lengths and surface areas, methods of integration, including integration by parts, trigonometric substitution, and partial fractions, improper integrals, conic sections, graphing and area in polar coordinates, infinite sequences and series, tests for absolute and conditional convergence of series, and power series. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2311 with a grade of "C" or better or equivalent.

MAC 2313 - Calculus III

4 Credit Hours
(Fall, Spring, Summer)

This is the third course in a three-course sequence. The course includes the following topics: vectors, lines and planes in space, quadric surfaces, vector-valued functions and motion in space, functions of two or more variables, partial derivatives, gradients, directional derivatives, and their applications, multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications, line integrals, and surface integrals. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better or equivalent.

MAD 2104 - Introduction to Discrete Mathematics

3 Credit Hours
(Fall)

This course is designed for those students who are majoring in computer science, mathematics, engineering, mathematics education, and other highly technical fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a grade of "C" or better in MAC 1140. A course in programming is recommended.

MAN 2021 - Management

3 Credit Hours
(Fall)

Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 2300 - Personnel Management

3 Credit Hours
(Fall, Spring)

An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAP 2302 - Differential Equations

3 Credit Hours
(Fall, Spring)

This course provides an introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): either completion of MAC 2313 with a "C" or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAR 2011 - Introduction to Marketing

3 Credit Hours
(Fall)

An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAS 2103 - Linear Algebra

3 Credit Hours
(Offered as needed)

This is an introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. This course includes the study of matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors. Exercises using MATLAB will be required. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 2312 with a grade of "C" or better, or equivalent.

MAT 1033A - Intermediate Algebra

4 Credit Hours
(Fall, Spring, Summer)

This is an intermediate algebra course designed to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. This course may be used as an elective, but does not meet Gordon Rule requirements for

B.A.S., A.A., or A.S. transfer students.

Prerequisite(s): a passing score on the standardized placement test measuring mathematics achievement, successful completion of MAT 0028 with a grade of "C" or better, or exemption from placement testing.

MAT 1033L - Intermediate Algebra Laboratory

1 Credit Hour
(Fall, Spring, Summer)

A hands-on lab designed to improve students' chance for success in the MAT1033A Intermediate Algebra course. Students will work to strengthen skills required to master the topics covered in Intermediate Algebra. The topics include, but are not limited to, factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions

Prerequisite(s): MAT 0028 or equivalent with a grade of "C" or better, or a score of 110-122 on the PERT, or on an elective basis with a score of 123 or higher on the PERT.

Corequisite(s): MAT 1033A

*Students scoring 110-113 on the PERT may enroll in MAT 1033A if they also enroll in MAT 1033L. Students should see an academic advisor.

MAT 2905 - Applied Teaching Techniques for Mathematics

4 Credit Hours
(Summer)

The goals of this course are: refinement or acquisition of mathematics skills and connections between mathematics topics needed for successfully tutoring in an academic setting; acquisition of general methods of tutoring as well as specific tutoring techniques needed for specific courses. Teacher-tutor seminars, teacher-tutor conferences, and formal instruction will supplement the extensive tutoring experiences. Prerequisite: Consent of the department. A minimum grade of "C" is required.

Prerequisite(s): Admission to the BS Middle Grades Math degree program

MCB 2010C - Microbiology, Allied Health

4 Credit Hours
(Fall, Spring, Summer)

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C.

MET 1010C - Introduction to Meteorology

4 Credit Hours
(Fall, Spring, Summer)

Structure of the atmosphere; weather processes, systems and phenomena; climate and climatic change, economic impact of weather. May be used to satisfy the AA degree Physical Science requirement for career goals other than sciences, engineering and pre-professional fields.

MGF 1106 - Practical Applications of Mathematics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, history of mathematics, geometry, sets, and logic. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): Students who are exempt from placement testing may enroll in this course with no prerequisites. Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 114 or higher on the math section of the PERT OR
(2) successful completion of MAT 0028 with a grade of "C" or better or equivalent or higher mathematics course

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MGF 1107 - Math in Society

3 Credit Hours ♦
(Fall, Spring, Summer)

This course is designed for those students requiring only general education mathematics courses. Topics include numeration and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s):
Students who are NOT exempt from placement testing may meet the prerequisite through any one of the following:
(1) 123 or higher on the math section of the PERT OR
(2) successful completion of MGF 1106 with a grade of "C" or better or equivalent or higher mathematics course OR
(3) concurrent enrollment in MGF 1106

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

MKA 2021 - Professional Selling

3 Credit Hours
(Fall)

Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2041 - Retail Management

3 Credit Hours
(Spring)

This course covers retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits, training and supervision of retail sales forces, and administrative problems. Also includes a variety of current perspectives in retailing management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MKA 2511 - Introduction to Advertising

3 Credit Hours
(Spring)

Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1161 - Customer Service

3 Credit Hours
(Fall, Spring)

Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1345 - Supervision I

3 Credit Hours
(Spring)

The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socioeconomic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 1346 - Supervision II

3 Credit Hours
(Offered as needed)

The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socioeconomic climate and other information. Included are orientation, training, labor unions, safety, health and other related topics.

Prerequisite(s): MNA 1345 is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2100 - Organizational Behavior

3 Credit Hours
(Spring)

Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MNA 2141 - Leadership Techniques

3 Credit Hours
(Offered as needed)

This interdisciplinary course addresses leadership in a group setting and focuses on leadership development through discussion, readings, group and individual projects and other applied activities.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MTB 1103 - Business Mathematics

3 Credit Hours
(Fall)

This course presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include the following: base, rate and percentage, trade and cash discounts, wage and salary administration, insurance (fire and automobile), depreciation and business profits, distribution of corporate dividends, simple interest and bank discount, and buying and selling of corporation bonds and stocks.

Prerequisite(s): completion of MAT 0028 with a "C" or better or satisfactory test scores. Knowledge of basic computer and keyboarding skills are strongly recommended.

MTG 2206 - College Geometry

3 Credit Hours
(Spring)

This course emphasizes Euclidean geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve the following: line segments, angles, triangles, polygons, parallel and perpendicular lines, slopes of lines, circles, and similarity. Trigonometry is presented in terms of right triangle relationships. Logic is the basis for deductive reasoning in proofs of theorems. Lines and other geometric figures are graphed in the rectangular coordinate system. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAC 1105 or equivalent with a "C" or better.

MUL 1010 - Music Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

Designed to develop a more intelligent understanding of and appreciation of music. By methodically surveying the main periods of Western Art Music from the Medieval Period through present day, this class will bring about an awareness of music as a vital source in human life, and will aid in developing positive attitudes toward culture and the fine arts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

MUM 1620 - Audio and Acoustic Fundamentals

3 Credit Hours
(Fall, Spring, Summer)

Audio and Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening. The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio and recording equipment.

MUM 2300 - Introduction to the Music Industry

3 Credit Hours
(Summer)

This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions.

MUM 2600 - Recording Techniques I

3 Credit Hours
(Fall, Spring, Summer)

This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

Prereq/Corequisites: MUM 1620

MUM 2601 - Recording Techniques II

3 Credit Hours
(Fall, Spring, Summer)

This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording.

Prerequisite(s): MUM 1620, MUM 2600.

MUM 2604 - Multi-Track Mixdown (Post Production)

3 Credit Hours
(Fall, Spring, Summer)

This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices.

Prerequisite(s): MUM 1620, MUM 2600, MUM 2601.

MUN 1000 - Summer Ensemble Workshop

3 Credit Hours
(Summer)

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances.

Prerequisite(s): experience in high school or a desire to learn.

MUN 1001 - Summer Ensemble Workshop II

3 Credit Hours
(Summer)

An ensemble workshop and performance to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop II will be expected to participate in several scheduled performances.

Prerequisite(s): MUN 1000.

MUN 1002 - Summer Ensemble Workshop III

3 Credit Hours
(Summer)

An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied. Students participating in Summer Ensemble Workshop will be expected to

participate in several scheduled performances.

Prerequisite(s): MUN 1000, MUN 1001.

MUN 1140C - Wind Ensemble I

1 Credit Hour
(Fall, Spring)

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 1310 - Women's Ensemble

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing NWFSC Chorus will be expected to participate in scheduled performances.

Prerequisite(s): Experience in high school choruses or choirs.

This course may be taken up to four times for credit.

MUN 1340A - NWFSC Show Choir I

1 Credit Hour
(Fall, Spring)

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): Audition, consent of department, music or performance minor.

This course may be taken up to four times for credit.

MUN 1360 - Madrigal Singers I

1 Credit Hour
(Offered Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day,

such as vocal jazz, spirituals and contemporary choral works. This course is for the "first year" student.

Prerequisite(s): Audition based on vocal quality, musicianship and sight reading ability.

This course may be taken up to four times for credit.

MUN 1390 - Symphony Chorale I

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student. The Symphonic Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): audition or permission of instructor.

This course may be taken up to four times for credit.

MUN 1421 - Flute Ensemble

1 Credit Hour
(Fall, Spring)

The study and performance of flute ensemble and flute choir music in a musical group.

Prerequisite(s): audition or instructor recommendation only.

This course may be taken up to four times for credit.

MUN 1710A - Rock and Jazz Ensembles I

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his or her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble.

Prerequisite(s): Some experience in high school bands, etc.

This course may be taken up to four times for credit.

MUN 1720A - Rock and Jazz Ensembles II

1 Credit Hour
(Fall, Spring)

Music performing organization open to any student who wants to develop his/her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble.

Prerequisite(s): experience in high school bands.

This course may be taken up to four times for credit.

MUN 2141C - Wind Ensemble II

1 Credit Hour
(Fall, Spring)

An instrumental ensemble providing an outlet and learning experience to study and perform standard wind band literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Wind Ensemble performs in both on and off campus venues.

Prerequisite(s): experience in high school or community band programs.

This course may be taken up to four times for credit.

MUN 2311 - Women's Ensemble II

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing Women's Ensemble will be expected to participate in scheduled performances.

Prerequisite(s): MUN 1310

This course may be taken up to four times for credit.

MUN 2361 - Madrigal Singers II

1 Credit Hour
(Fall, Spring)

Auditioned a cappella ensemble teaching choral styles that range from the Renaissance madrigal to present day, such as vocal jazz, spirituals and contemporary choral works. This course is for the "second year" student.

Prerequisite(s): MUN 1360.

This course may be taken up to four times for credit.

MUN 2371 - NWFSC Show Choir II

1 Credit Hour
(Fall, Spring)

A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year.

Prerequisite(s): MUN 1340A.

This course may be taken up to four times for credit.

MUN 2392 - Symphony Chorale II

1 Credit Hour
(Fall, Spring)

A music organization open through auditions to any student. The Symphony Chorus will study and perform literature for the large sized chorus.

Prerequisite(s): MUN 1390.

This course may be taken up to four times for credit.

MUS 1905A - Independent Study – Music

1 Credit Hour
(Offered as needed)

A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

MUS 1934 - Music - Special Topics

3
(Offered Fall, Spring)

A defined special topics which is pursued under supervision of a faculty member and recorded through usual departmental procedures. This course may be taken up to four (4) times for credit.

MUS 2930 - Music – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

*This course may be taken up to four times for credit.

MUT 1001 - Fundamentals of Music

3 Credit Hours
(Fall, Spring, Summer)

A pre-theory course for the music major, non-music major, or for the elementary education major.

MUT 1111 - Music Theory I

3 Credit Hours
(Fall, Spring)

A study of the fundamentals of basic musicianship, music notation, simple rhythms, key signatures, intervals, major and minor scales, intervals, triads, 7th chords, polyphonic composition and elementary keyboard work. This course also introduces students to tools necessary for analyzing musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1241

MUT 1112 - Music Theory II

3 Credit Hours
(Fall, Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, species counterpoint, chord structures, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1111

Corequisite(s): MUT 1242

MUT 1241 - Ear Training and Sight Singing I

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1001 or Approval of Theory Faculty and successful completion of Theory Fundamentals Exam

Corequisite(s): MUT 1111

MUT 1242 - Ear Training and Sight Singing II

1 Credit Hour
(Fall, Spring)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, simple & compound rhythms identification and dictation, interval identification and dictation, major and minor scales identification and dictation, triad identification and dictation, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1241

Corequisite(s): MUT 1112

MUT 2116 - Music Theory III

3 Credit Hours (Fall)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including secondary chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries.

Prerequisite(s): MUT 1112

Corequisite(s): MUT 2246

MUT 2117 - Music Theory IV

3 Credit Hours (Spring)

A continuing study of the fundamentals of basic musicianship, music notation, rhythms, musical structures, basic and advanced harmonic structures including modulation, non-tonicizing fully diminished 7th chords, augmented 6th chords, mode mixture, Neapolitan chords, polyphonic composition and keyboard work. This course is a continuing study of analytical models used for musical compositions of the 17th & 18th centuries while providing an introduction to Romantic period and chromatic musical structures.

Prerequisite(s): MUT 2116

MUT 2246 - Ear Training and Sight Singing III

1 Credit Hour (Fall)

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 1242

Corequisite(s): MUT 2116

MUT 2247 - Ear Training and Sight Singing IV

**1 Credit Hour
(Spring)**

A study of the fundamentals of basic musicianship with specific focus on elements of ear training and sight singing including, music notation, intermediate and advanced rhythmic identification and dictation, identification and dictation of advanced sonorities, and melodic and rhythmic dictation. This student will incorporate both rhythmic and tonal syllable systems.

Prerequisite(s): MUT 2246

Corequisite(s): MUT 2117

MVB 1201 - Applied Music Secondary – Brass I

**1 Credit Hour
(Fall, Spring)**

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

This course may be taken up to four times for credit.

MVB 2202 - Applied Music Secondary – Brass II

**1 Credit Hour
(Fall, Spring)**

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors.

Prerequisite(s): MVB 1201.

This course may be taken up to four times for credit.

MVK 1211 - Applied Music – Piano I

**1 Credit Hour
(Fall, Spring)**

Private instruction in piano, as secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVK 1311 - Applied Music - Piano I for Majors

**2 Credit Hours
(Fall, Spring, Summer)**

Private instruction in Piano in the freshman year of study as the student's principal performing medium. This one hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which three-four memorized selections from

standard literature will be required.

Prerequisite(s): MVK 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVK 2221 - Applied Music – Piano II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in piano, as a secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required.

Prerequisite(s): MVK 1211.

This course may be taken up to four times for credit.

MVK 2321 - Applied Music - Piano II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in Piano in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended piano majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which a memorized sonata movement and three-four memorized selections from standard literature will be required.

Prerequisite(s): MVK 1211, MVK 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVP 1201 - Applied Music Secondary – Percussion I

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice is required.

This course may be taken up to four times for credit.

MVP 2202 - Applied Music Secondary – Percussion II

1 Credit Hour
(Fall, Spring)

Private instruction in percussion instruments to develop the student's performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice.

Prerequisite(s): MVP 1201.

This course may be taken up to four times for credit.

MVS 1016 - Applied Strings – Guitar I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction on guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1017 - Applied Strings – Bass Guitar I

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

This course may be taken up to four times for credit.

MVS 1201 - Applied Music Secondary – Strings I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVS 2026 - Applied Strings – Guitar II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

Prerequisite(s): MVS 1016.

This course may be taken up to four times for credit.

MVS 2027 - Applied Strings – Bass Guitar II

1 Credit Hour
(Fall, Spring)

Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency.

Prerequisite(s): MVS 1017.

This course may be taken up to four times for credit.

MVS 2202 - Applied Music Secondary – Strings II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVS 1201.

This course may be taken up to four times for credit.

MVV 1211 - Applied Music – Voice I

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice.

This course may be taken up to four times for credit.

MVV 1311 - Applied Music - Voice I for Majors

2 Credit Hours
(Fall, Spring, Summer)

Private instruction in voice in the freshman year of study as the student's principal performing medium. This one hour weekly lesson is for intended voice majors, and requires Division Chair approval. A major component of this class is a required juried performance at the end of the semester for which four memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211 and Division Chair approval.

This course may be taken up to four times for credit.

MVV 2221 - Applied Music – Voice II

1 Credit Hour
(Fall, Spring, Summer)

Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice.

Prerequisite(s): MVV 1211.

This course may be taken up to four times for credit.

MVV 2322 - Applied Music - Voice II for Majors

2 Credit Hours
(Offered as needed)

Private instruction in voice in the sophomore year of study as the student's principal performing medium. This one hour, weekly lesson is for intended voice majors, and requires Division Chair Approval. A major component of this class is a required juried performance at the end of the semester for which six memorized selections from standard literature will be required.

Prerequisite(s): MVV 1211, MVV 1311 and Division Chair approval.

This course may be taken up to four times for credit.

MVW 1201 - Applied Music Secondary – Woodwinds I

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

This course may be taken up to four times for credit.

MVW 2202 - Applied Music Secondary – Woodwinds II

1 Credit Hour
(Fall, Spring)

Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors.

Prerequisite(s): MVW 1201.

This course may be taken up to four times for credit.

NUR 1021C - Nursing Process I

6 Credit Hours
(Fall, Spring)

This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psycho-social sciences in this first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to healthcare systems ethical-legal aspects of nursing practice, health and illness, communications, functional health patterns of clients, stress-adaptation, professional behaviors, and all steps of the nursing process with emphasis on assessment of older adult clients. Students begin socialization into the role of the Associate Degree Nurse as a member of an interdisciplinary healthcare team.

Prerequisite(s): Admission to the AS Nursing Program, BSC 1085C, ENC 1101, (MAC 1105 OR STA 2023)

Corequisite(s): NUR 1021L

Prereq/Corequisites: BSC 1086C, HUN 2201

Special Nursing Program policies may apply to this course.

NUR 1021L - Nursing Process I Clinical Experience

4 Credit Hours
(Fall, Spring)

This course introduces students to the role of the Associate Degree Nurse in providing direct, holistic nursing care to young, middle-aged and older adults who are hospitalized or in community settings. Students are introduced to all steps of the nursing process with a focus on assessment skills. Students will identify self-learning needs and set their own goals for improvement. Critical thinking and working effectively with peers and other healthcare professionals as a team member is expected. The demonstration of caring behaviors and therapeutic communication as a provider of bedside, technical nursing care is emphasized. Students must demonstrate safe performance of basic nursing skills, including but not limited to medication administration, physical assessment, and comfort care.

Prerequisite(s): Admission to the AS Nursing Program

Corequisite(s): NUR 1021C.

Special Nursing Program policies may apply to this course.

NUR 1141 - Pharmacologic Principles in Nursing I

1 Credit Hour
(Fall, Spring)

This course introduces students to concepts and principles of pharmacology related to safe administration of therapeutic agents within the nursing process framework. Students begin to learn major drug classifications and selected exemplars along with principles of safe, effective administration of drugs. Students will learn dosage calculations, factors that affect the absorption, excretion, distribution, and metabolism of drugs, as well as drug actions, adverse effects, and interactions.

Prerequisite(s): Admission to the AS Nursing Program

Special Nursing Program policies may apply to this course.

NUR 1142 - Pharmacologic Principles in Nursing II

1 Credit Hour
(Fall, Spring)

An introduction to the role of the associate degree nurse in providing direct, holistic nursing care to young, middle-aged and elderly adults who are hospitalized or receiving care in community settings. Emphasis is on applying all steps of the nursing process with focus on assessment skills. Pre-requisite college foundation and nursing courses provide theoretical bases for nursing care. Critical thinking is an expected behavior along with skills in working ethically and effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care of hospitalized adults and nursing home residents.

Prerequisite(s): NUR 1141 or LPN licensure and admission to the Nursing Program

Corequisite(s): NUR 1231C and NUR 1750L

Special Nursing Program policies may apply to this course.

NUR 1231C - Nursing Process II

5 Credit Hours

(Fall, Spring)

Application of the nursing process continues with emphasis on the planning and implementation of nursing care for clients experiencing threats to functional health patterns. Development of professional behaviors, such as developing therapeutic relationships continues with students working clients through life interactions. Students further develop critical thinking skills through case studies and simulation scenarios designed to provide students with problem solving skills in analyzing, planning and prioritizing care for clients whose health problems are more acute or chronic; the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief, and loss. Students learn basic management skills as a team member caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate.

Prerequisite(s): NUR 1021L NUR 1021C and NUR 1141;or LPN licensure; admission to the AS Nursing Program or permission from the program director

Corequisite(s): NUR 1750L and NUR 1142

Prereq/Corequisites: DEP 2004

Special Nursing Program policies may apply to this course.

NUR 1750L - Nursing Process II - Clinical Experience

4 Credit Hours

(Fall, Spring)

This course builds on competencies presented in Nursing Process I regarding the role of the Associate Degree Nurse in providing direct, holistic nursing care for adult clients experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, and community settings provide students with opportunities to apply the nursing process in care of clients, including the older adult. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills.

Prerequisite(s): NUR 1021L or LPN licensure

Corequisite(s): NUR 1231C.

Special Nursing Program policies may apply to this course.

NUR 1940L - Nursing Clinical Externship

3 Credit Hours

(Summer)

This elective course is designed to offer students the opportunity to gain additional clinical skills practice during the

summer semester. Working with a preceptor and the nursing faculty in area hospitals, clinics, or community settings , the student will be able to perform all skills learned in successfully completed nursing courses.

Prerequisite(s): admission to the AS Nursing Program; NUR 1750L or NUR 1021L

Special Nursing Program policies may apply to this course.

NUR 2233C - Nursing Process III

6 Credit Hours (Fall, Spring)

Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including during the childbearing process and children whose normal lines of defense have been invaded by stressors to the degree that hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development.

Prerequisite(s): NUR 1231C & NUR 1142 or approval from the program director.

Corequisite(s): NUR 2233L

Prereq/Corequisites: MCB 2010C

Special Nursing Program policies may apply to this course.

NUR 2233L - Nursing Process III – Clinical Experience

4 Credit Hours (Fall, Spring)

Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for the hospitalized child, the family during the maternity cycle, and adults whose health problems are more complex and/or chronic. Clinical sites include hospitals, health departments, clinics, physician offices, schools and other community settings. Conflict resolution skills are applied, as needed, to meet client and/or peer learning goals. Delegation skills with peers are also practiced. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this clinical course.

Prerequisite(s): NUR 1750L

Corequisite(s): NUR 2233C.

Special Nursing Program policies may apply to this course.

NUR 2241C - Nursing Process IV

5 Credit Hours (Fall, Spring)

Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical

thinking skills in exploring case-based practice situations and work together in simulation seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development.

Prerequisite(s): Permission from the Director of Nursing or NUR 2233C; MAC 1105 or STA 2023

Corequisite(s): NUR 2241L, NUR 2811L

Prereq/Corequisites: SYG 2000

Special Nursing program policies may apply to this course.

NUR 2241L - Nursing Process IV – Clinical Experience

3 Credit Hours (Fall, Spring)

Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their four-week clinical practicum prior to graduation from the program. Students will also shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Other clinical activities will include experiences in the emergency department and critical care units. Students must demonstrate competency in all behaviors required for an Associate Degree Nursing graduate.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2811L

Special Nursing Program policies may apply to this course.

NUR 2811L - Nursing Practicum

3 Credit Hours (Fall, Spring)

This course is a capstone course and provides a time during the last four weeks of the nursing program in which students begin to transition from the student role into the graduate role as an associate degree nurse. Students attend seminar hours and complete standardized testing for evaluation in proficiency in applying all steps in the nursing process with emphasis on evaluating safe nursing care outcomes. Students complete clinical practice hours with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients. The focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry level. Clinical experiences provide hands-on learning opportunities, enhancing clinical thinking, safe nursing judgment, and clinical confidence in skills. Clinical experiences take place in a variety of clinical settings and work schedules.

Prerequisite(s): NUR 2233L

Corequisite(s): NUR 2241C, NUR 2241L

Special Nursing Program policies may apply to this course.

OCE 1001C - Oceanography

4 Credit Hours
(Fall, Spring)

A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional healthcare.

OCE 1013C - Aquatic Environmental Science

4 Credit Hours
(Offered as needed)

This course will investigate living and non-living components of aquatic ecosystems. Students will learn how aquatic ecosystems function naturally as well as how human activity can alter these ecosystems. The course is built around field trip(s) and lab work during which students will obtain water quality data from a local aquatic environment. Through field trip(s) and lab work, students will gain appreciation for the local relevance of course material. For both majors and non-majors, a key outcome of such experiences will be gaining experience in using inquiry and reasoning through the scientific method and becoming comfortable with data, technology, and instrumentation. Problem-solving, interpretation of data, and class discussions will be key.

OST 1107 - Word Processing I

3 Credit Hours
(Fall)

Integration of basic keyboarding and word processing – learning the keyboard, creating, editing, saving, and other word processing functions.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

▲ Technology-Across-the-Curriculum Course.

OST 1355 - Records Management

3 Credit Hours
(Fall)

Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2117 - Word Processing II

3 Credit Hours
(Spring)

Continuation of Typing and Word Processing I – develop keyboarding and document processing using a microcomputer.

Prerequisite(s): OST 1107 is required and knowledge of basic computer and keyboarding skills are strongly

recommended.

▲ Technology-Across-the-Curriculum Course.

OST 2335 - Business Communications

3 Credit Hours
(Fall, Spring)

Business Communications is a comprehensive coverage of language structure and particular emphasis on writing superior business letters and reports. Instruction in principle, then illustration, and practice in applying the principles. A fundamental concept of the appearance, language and style, tone and psychology of effective business letters.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

OST 2401 - General Office Management

3 Credit Hours
(Spring)

Study of practices and procedures in the modern office. Emphasis on exercising judgment, handling incoming calls and callers, processing mail, word processing systems, editing and composing techniques, travel arrangements, banking procedures, employment applications and resumes.

Prerequisite(s): OST 2117 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PEL 1212A - Advanced Softball

1 Credit Hour
(Offered as needed)

Instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

PEL 1213 - Advanced Softball II

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Softball, which consists of instruction, practice, and participation in advanced softball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1212A (Athletes)

PEL 1217A - Advanced Baseball

1 Credit Hour
(Offered as needed)

Instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

PEL 1219 - Advanced Baseball II

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Baseball, which consists of instruction, practice, and participation in advanced baseball. The continuous development of physical skills is of major importance in this course.

Prerequisite(s): PEL 1217A (Athletes)

PEL 1624M - Advanced Basketball (Men)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill-oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1624W - Advanced Basketball (Women)

1 Credit Hour
(Offered as needed)

This course is a high intensity, drill oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including: rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

PEL 1626M - Advanced Basketball II (Men)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Men, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624M (Athletes)

PEL 1626W - Advanced Basketball II (Women)

1 Credit Hour
(Offered as needed)

This course is a continuation of Advanced Basketball for Women, which consists of a high intensity, drill -oriented program designed to increase the knowledge, skill ability, and endurance levels of individuals interested in basketball. Instruction includes various aspects of the game of basketball including rules and regulations, basic fundamentals, offensive set, defensive sets, and scouting procedures. Instruction will be given through classroom lectures, as well as on-the-court lectures and activities. It is strongly recommended that students participate in an exercise program outside of class hours. It may be recommended and in some cases required that the student obtain medical approval before participating in this course.

Prerequisite(s): PEL 1624W (Athletes)

PEM 1131A - Strength Training

3 Credit Hours
(Offered as needed)

This course is a high intensity lecture/demonstration and flexible lab hour weight training program designed to increase the size, strength, and endurance of the skeletal muscle system. Instruction includes, but is not limited to, weight training safety, etiquette, history, and nutrition. Instruction will be given in the design of progressive resistance programs to increase total body efficiency and to meet the objectives of the individual student. Students are responsible for determining fitness for training, and those with medical problems which restrict personal activities are encouraged to obtain medical clearance before enrolling in the course.

PEM 2108 - Fitness Lab

1 Credit Hour
(Offered as needed)

Instruction and participation in an exercise program with emphasis on muscle endurance, strength and flexibility.

Prerequisite(s): HLP 1081 or approved wellness assessment by the department chair.

This course may be taken up to four times for credit.

PEO 2004 - Theory and Practice of Teaching a Specific Sport

3 Credit Hours
(Offered as needed)

This course is designed to provide knowledge of the rules, teaching progressions and strategies for competition. The course includes acceptable behavior and ethics for coaches. This course will be offered for the following specific sports: baseball/softball, basketball, football, golf, soccer, swimming, tennis, track and field/cross country, volleyball and wrestling.

PEO 2005 - Coaching Theory

3 Credit Hours
(Offered as needed)

This course is designed to provide knowledge of the characteristics, principles, ethics, and theories related to

coaching sports in educational and recreational settings. Emphasis is placed on preparing coaches to train athletes to achieve optimal levels of performance.

PET 1000 - Introduction to Physical Education

3 Credit Hours
(Offered as needed)

A study of the history of physical education and sport with particular emphasis placed on present practices and trends.

PET 2622 - Care and Prevention of Athletic Injuries

3 Credit Hours
(Offered as needed)

Designed to provide students with a basic knowledge of the care, prevention, and rehabilitation of injuries received during participation in physical education activities to include the effects and dangers of drug use including performance enhancing drugs.

PGY 1220C - Commercial Photography I

4 Credit Hours
(Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using a high quality digital studio camera, electronic lighting, and digital applications of their work. It is recommended that students take PGY 1801C prior to or at the same time as this course.

PGY 1401C - Basic Photography

3 Credit Hours
(Fall, Spring)

A beginning course in black and white photographic and darkroom technique. Students will learn the functions of their camera and darkroom equipment. Students will apply their technical knowledge to various artistic challenges. Access to a 35mm camera with manual mode required.

PGY 1405C - Advanced Black and White Photography

3 Credit Hours
(Fall, Spring)

An advanced course in black and white photography. Students will be presented with more demanding creative challenges and will be exposed to a variety of advanced procedures in the darkroom. Access to a 35mm camera with manual mode required.

Prerequisite(s): PGY 1401C or equivalent.

PGY 1801C - Digital Photography I

4 Credit Hours
(Offered as needed)

A beginning course in photography with an emphasis on digital darkroom production techniques. Students will be exposed to procedures and aesthetic concerns relating to photography and digital image production. Access to an appropriate high-quality camera required.

▲ Technology-Across-the-Curriculum Course.

PGY 2221C - Commercial Photography II

4 Credit Hours
(Offered as needed)

As advanced a course that allows the student to expand their skill set in producing photographic illustrations for industrial and advertising use. Students may explore product, portrait, and on-location commercial photographic projects.

Prerequisite(s): PGY 1220C and PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2802C - Digital Photography II

4 Credit Hours
(Offered as needed)

An intermediate-level photography course where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 1801C.

▲ Technology-Across-the-Curriculum Course.

PGY 2804C - Digital Photography III

4 Credit Hours
(Offered as needed)

An advanced-level photography courses where creative idea generation and composition in photography are emphasized. Students research more deeply the history of photography and apply new skills to creative digital photographic work. Access to an appropriate high-quality camera required.

Prerequisite(s): PGY 2802C.

▲ Technology-Across-the-Curriculum Course.

PHI 2010 - Introduction to Philosophy

3 Credit Hours ♦ † ♦ ¶
(Fall, Spring, Summer)

Central concepts of philosophy are developed, including a description of the main philosophical problems involved through ancient, medieval, and contemporary thought. This is a Writing-Across-the-Curriculum course and a Speaking-Across-the-Curriculum course requiring selected written and speaking assignments. If used to meet AA Gordon Rule requirements for general education, a minimum grade of "C" is required.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2600 - Introduction to Ethics

3 Credit Hours ❖ † ¶
(Fall, Spring, Summer)

Ways to frame and resolve ethical issues are studied. Major historical theories including consequentialism, deontology, and virtue ethics are presented in moral arguments and narratives. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

PHI 2930 - Philosophy – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

PHY 1020 - Physical Science

3 Credit Hours ♦
(Fall, Spring, Summer)

A one term course of lectures and demonstrations designed 1) to meet the general education requirements in physical science for non-science majors and 2) for students who need a preparatory course prior to taking physics. The course presents the fundamental classical and modern concepts of physics in the area of mechanics, energy, wave motion, electromagnetism, and atomic structure. Also topics in earth science and astronomy will be discussed.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1053C - General Physics Without Calculus I

4 Credit Hours ♦
(Fall)

This is the first course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers classical mechanics and thermodynamics. Entering students are assumed to have a serviceable knowledge of basic algebra and trigonometry. This course contains both lecture and laboratory components.

Prerequisite(s): MAC 1114 or equivalent

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 1054C - General Physics Without Calculus II

4 Credit Hours
(Spring)

This is the second course in a two-term sequence of non-calculus physics designed for biological science and pre-health profession majors. This course covers the areas of electricity, magnetism, light, quantum theory, atomic and nuclear structure, and elementary particles. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 1053C or equivalent.

PHY 2048C - General Physics With Calculus I

4 Credit Hours ♦
(Fall, Spring, Summer)

This is the first course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers classical mechanics (statics and dynamics of point-masses), rigid-body dynamics, oscillations, and waves. Additional topics, such as fluids or the special theory of relativity, may be covered if time permits. This course contains both lecture and laboratory components.

Prereq/Corequisites: MAC 2311.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

PHY 2049C - General Physics with Calculus II

4 Credit Hours
(Spring, Summer)

This is the second course in a two-term sequence of calculus-based physics designed for engineering and physical science majors. This course covers electrostatics, magnetostatics, electromagnetic fields and waves, direct-current circuits, alternating-current circuits, and optics. This course contains both lecture and laboratory components.

Prerequisite(s): PHY 2048C

Prereq/Corequisites: MAC 2312 or equivalent

In special circumstances, PHY 2048C and PHY 2049C can be taken out of sequence with instructor approval.

PLA 1003 - Introduction to Paralegal Studies

3 Credit Hours
(Fall)

This course is designed to give students a broad understanding of the nature of the paralegal profession and the elements contained within the profession, as well as its responsibility.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1005 - Legal Terminology

3 Credit Hours
(Offered as Needed)

This course is designed to give an explanation of the common legal vocabulary involved in the broad, general principles of substantive and common law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1013 - Introduction to the Legal System

3 Credit Hours
(Offered as Needed)

A practical introduction to the US legal system, types and sources of law, the courts, and related topics; a beginning course for students seeking careers in legal secretary technology or legal assisting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1114 - Legal Research and Writing

3 Credit Hours
(Spring)

This course is designed to provide the student with necessary skills and knowledge required in legal research/case analysis and legal writing.

Prerequisite(s): PLA 1003 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1203 - Civil Procedure

3 Credit Hours
(Spring)

This course provides an insight into the system of dispute resolution for private parties and the government provided by the court systems of the various states and the federal government in a non-criminal setting.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1600 - Wills, Trusts, and Probate

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of estate planning, wills, and probate administration.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 1800 - Introduction to Family Law

3 Credit Hours
(Spring)

An introduction to practices as they relate to family law.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2273 - Tort Law

3 Credit Hours
(Fall)

This course is designed to provide the student with an introductory knowledge of tort law with objectives centered on personal injury torts.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

PLA 2949 - Internship - Paralegal

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing

skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): completion of a minimum of 12 credit hours in the appropriate discipline, including PLA 1003 and permission of the instructor is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

*This college credit course is not intended for transfer and may not be applied toward the AA degree.

PMT 1203C - Introduction to Machining

3 Credit Hours
(Fall, Spring, Summer)

This course introduces the student to basic mechanic fundamentals. Instructional topics will include hand tool identification and application, power tool identification and application and shop safety.

PMT 1250C - Introduction to CNC Machining

3 Credit Hours
(Fall, Spring, Summer)

The history and development of CNC (computer numerical control). Programming methods are reviewed with the emphasis of skills placed on programming, milling, drilling and turning with M and G code preparation. Manual and computer assisted programming are also reviewed. Students will program, set up and operate full size CNC machines found in our manufacturing lab. Projects will be assigned to students with an expectation of performing these tasks on manufacturing equipment.

PMT 2213C - Machining I

3 Credit Hours
(Fall, Spring, Summer)

In this course students will continue to develop basic machining skills and better utilize machine tool accessories to assist in different machining operations to include: Set up and utilize machine tool accessories, Vertical knee milling operation, manual lathe operations, manual lathe threading and drill press operations.

Prerequisite(s): PMT 1203C and ETD 2218 or equivalent experience

PMT 2261C - CNC Machining I

3 Credit Hours
(Fall, Spring, Summer)

This course provides training in CNC machine operation and programming. The student will gain technical knowledge

and programming methods employed in CNC machining centers. CNC Machine programming, set-up and operations are taught using computer and hands on applications. Metal fabrication processes are taught through lectures, demonstration and student generated projects. Completion of this course offers students technical skills as a CNC operator processes to be applied in various machining and fabrication industries. MasterCam–Lathe is taught to provide the student programming application in CNC machining.

Prerequisite(s): PMT 1250C or equivalent experience.

PMT 2262C - CNC Machining II

3 Credit Hours
(Fall, Spring, Summer)

This course will offer students a working knowledge of MasterCam Mill 2-D and Solidworks. This is the second class offered which teaches the student 3-D design using solidworks. An in-depth study of CAD/CAM software, CNC processing methods and the set-up of CNC machining centers. The course lectures and lab offer students hands-on applications using Solidworks generated projects processed with Mastercam tool path software to generate various projects. The student will also learn to calculate machining feeds and Speeds, edit CNC programs and part production for Mill and Lathe.

Prerequisite(s): PMT 2261C or equivalent experience.

POS 1041 - American Government

3 Credit Hours ♦ ¶ Ω
(Fall, Spring, Summer)

Examines government, political ideals, and institutions. Strong emphasis is placed on political thought, the origin of the American federal system, and the distribution of powers between state and national governments. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

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¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

Ω Courses listed with this symbol have a Civic Literacy Competency.

PSC 2905 - Independent Study – Physical Science

1 Credit Hour
(Fall, Spring, Summer)

Directed study and individual projects designed to meet the needs of students interested in a specialized area of the physical sciences for which present course availability is limited. Meets specific general education requirements.

This course may be taken up to four times for credit.

PSY 2012 - Psychology

3 Credit Hours ♦
(Fall, Spring, Summer)

Surveys of the various fields of psychology. Understanding human behavior by studying the adaptation of the individual to the physical and social environment.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

REA 1205 - Reading Across the Genres I

3 Credit Hours
(Offered as needed)

This college-level reading course employs a variety of literary genres as the source material for building student skills in comprehension, context clues, reading speed, critical analysis, vocabulary, and other related reading skills. Students will be exposed to numerous styles and levels of reading material including novels, short stories, critical essays, drama, news reporting. Students will also develop a personal reading preference profile and learn how to identify books, magazines and other reading material commensurate with that profile.

Prerequisite(s): PERT placement score of 106 or higher.

REL 2300 - Introduction to World Religions

3 Credit Hours ♦ ¶
(Fall, Spring, Summer)

This course will explore the principles and practices of the world's major religious traditions. The religions will be studied in their historical and contemporary forms. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

REL 2930 - Religion – Special Topics

3 Credit Hours
(Offered as needed)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

RTE 1000 - Introduction to Radiologic Technology

2 Credit Hours

(Summer, Offered as needed)

This course is designed to provide an overview of the history of radiography and the role and scope of practice of the practitioner in the healthcare delivery system. Organizations, accreditation, federal agencies, regulatory agencies (including OSHA), and professional credentialing will be discussed. Content includes a fundamental background in medical law, ethics, human diversity, and patient consent. The student will examine a variety of ethical issues and dilemmas found in clinical practice, as well as developing a better understanding of patients, the patient's families, and professional peers through comparison of diverse populations based on value systems, cultural and ethnic influences, communication styles, and socioeconomic influences. Radiographic medical terminology and pharmacology will be covered. Site specific clinical education paperwork will be completed. Background check, drug screening, training, and clinical site approval mandatory.

Prerequisite(s): Admission to the Radiography Program.

RTE 1111 - Introduction to Radiographic Patient Care

2 Credit Hours

(Fall)

This course is designed to prepare radiography students to provide basic patient care. Basic concepts of patient care will be described, as well as infection control procedures and standard precautions. This course includes hospital specific training. Health risks, life stages, HIV/AIDs and domestic violence will be discussed. This course also includes an introduction to medical and radiographic terminology. Topics include vital signs, venipuncture, body mechanics and transport, verbal/nonverbal communication, and some pharmacology.

Prerequisite(s): admission to the Radiography Program.

RTE 1418 - Radiographic Techniques I

3 Credit Hours

(Fall)

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. This course introduces the student to a comprehensive study and theory of the production of x-rays and primary exposure factors of radiographic imaging. The image parameters of density, contrast, recorded detail, image distortion and blur will be studied as well as ancillary devices and equipment required to produce a quality radiographic image. Digital imaging with related accessories will be emphasized. Class demonstrations and exercises are used to demonstrate application of theory.

Prerequisite(s): MAC 1105 or other Gordon Rule math course and admission to the Radiography Program.

RTE 1457C - Radiographic Techniques II

4 Credit Hours

(Spring)

This course is a continuation of RTE 1418 Radiographic Techniques I. Course content includes the basics of magnetism, electricity, motors, generators, rectifying systems, x-ray tube and filament circuitry. Topics in electromagnetism such as self and mutual induction, high voltage transformation, and AC rectification will

be emphasized. An introduction of special radiographic methods will include automatic exposure control, computers, fluoroscopy and image intensification, subtraction radiography, conventional tomography, digital image receptors, and digital image acquisition and manipulation.

Prerequisite(s): RTE 1418.

Corequisite(s): RTE 1513C

RTE 1503C - Radiographic Procedures I

4 Credit Hours (Fall)

This course is designed to provide the Radiography student with instruction in radiographic examinations of the chest, abdomen, upper extremity and lower extremity. An introduction to medical and radiographic terminology, radiographic anatomy, and image critique are also included.

Prerequisite(s): BSC 1085C and admission to the Radiography program.

RTE 1513C - Radiographic Procedures II

4 Credit Hours (Spring)

This course is a continuation of RTE 1503C. It is designed to provide the student with instruction in radiographic procedures and anatomy in the distal extremities, hip region, spine, ribs, and sternum and the cranium. Critical thinking, medical and radiographic terminology, as well as image critique are emphasized.

Prerequisite(s): RTE 1503C, RTE 1804L , and BSC 1086C

Corequisite(s): RTE 1814L.

RTE 1804L - Radiography Clinical Education I

3 Credit Hours (Fall)

This course involves the practical application of the theories covered in RTE 1503C and RTE 1000. Rotations provide experience with various imaging systems, protocols, and patient care. Students observe, assist and perform basic radiographic procedures (chest, abdomen and extremities) under direct supervision. This course emphasizes patient care and critical thinking. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1000

Corequisite(s): RTE 1503C

RTE 1814L - Radiography Clinical Education II

3 Credit Hours (Spring)

This course is a continuation of Radiography Clinical Education I. This clinical training emphasizes lower and upper extremity. Medical and radiographic terminology, patient care, critical thinking and communication skills are emphasized. This course meets at the affiliate hospitals. Uniforms, name badges and radiographic markers required.

Prerequisite(s): RTE 1804L

Corequisite(s): RTE 1513C.

RTE 1824L - Radiography Clinical Education III

4 Credit Hours (Summer)

This course is a continuation of Radiography Clinical Education II. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I and II. The student will gain experience and develop clinical competence in general radiographic procedures such as the cranium and specialized contrast studies. Advanced patient care skills, critical thinking, imaging and exposure techniques, radiation protection application and image processing will be emphasized. This rotation covers clinical experience in all phases of fundamental radiologic procedures and image critique. Students will rotate through ancillary departments in this course.

Prerequisite(s): RTE 1814L

Corequisite(s): RTE 2523C.

RTE 2061 - Radiographic Preparation for Practice

4 Credit Hours (Spring)

This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover patient care and education, image production, equipment operation and maintenance, radiographic procedures and radiation protection. The student will also be given simulated registry examinations for practice and assessment purposes.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2854L.

RTE 2385 - Radiographic Protection and Biology

3 Credit Hours (Fall)

This course is designed to provide the student with an overview of the principles of interaction of ionizing radiation with living systems. Ionizing effects on molecules, cells, tissues and the body as a whole are presented, along with factors affecting biological response, including; acute, chronic, stochastic and non-stochastic effects. This course is also designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and healthcare organizations are incorporated, as are the various methods of monitoring radiation exposure and acceptable dose limit values.

Prerequisite(s): RTE 1000, RTE 1418, RTE 1457C, RTE 2523C

Corequisite(s): RTE 2844L.

RTE 2473 - Radiographic Quality Assurance

2 Credit Hours

(Fall)

This course is designed to introduce the radiography student to evaluation methodology of radiographic systems to assure consistency in the production of quality images. Image critique, fluoroscopy, malfunctions, and specifications are some of the topics covered in the course.

Prerequisite(s): RTE 1418, RTE 1457C

Corequisite(s): RTE 2844L.

RTE 2523C - Radiographic Procedures III

3 Credit Hours

(Summer)

This course is a continuation of RTE 1513C covering cranium procedures and positioning. It is designed to provide the student with instruction in more complex radiographic procedures such as fluoroscopy, urinary studies, bone age, trauma, pediatrics, mobile and surgical radiography. Included is instruction in additional modalities and studies such as CT, MRI, arthrography, myelography, and vascular studies. Attention will be given to the specialized equipment, contrast media, critical thinking and techniques necessary to perform these procedures. Radiographic anatomy, pathology, and critique of images are included in this course.

Prerequisite(s): RTE 1513C

Corequisite(s): RTE 1824L.

RTE 2533C - Radiographic Procedures IV

2 Credit Hours

(Fall)

This is a continuation of RTE 2523C, with emphasis on special procedures and additional modalities. Students are required to complete observations hours within specialty areas.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2844L

RTE 2571 - Introduction to Computed Tomography

1 Credit Hour

(Spring)

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Content is not intended to result in clinical competency.

Prerequisite(s): RTE 1418

RTE 2782 - Radiographic Pathology

3 Credit Hours
(Spring)

This course is designed to introduce theories of disease causation and the pathophysiologic disorder that compromise healthy persons. Etiology, pathophysiologic responses, clinical manifestations, and radiographic appearance of alterations in body systems will be presented. Emphasis will be placed on pathological findings on diagnostic radiographic images.

Prerequisite(s): RTE 2523C

Corequisite(s): RTE 2854L.

RTE 2844L - Radiography Clinical Education IV

5 Credit Hours
(Fall)

This course is a continuation of RTE 1824L. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I, II and III. The student will gain experience and develop clinical competence in specialized imaging procedures, and mobile, surgical and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 1824L

Corequisite(s): RTE 2385.

RTE 2854L - Radiography Clinical Education V

5 Credit Hours
(Spring)

This course is a continuation of RTE 2844L. The terminal objective for this course is to prepare the student for employment as an entry level technologist. The student is expected to continue to refine those skills related to objectives listed in Clinical Practicum's I-IV and trauma radiography. Advanced imaging skills and exposure techniques will continue to be provided. Rotations through ancillary areas continue.

Prerequisite(s): RTE 2844L

Corequisite(s): RTE 2061.

SBM 2000 - Small Business Management

3 Credit Hours
(Spring)

This course provides students the opportunity to learn hands-on technical applications regarding entrepreneurship. It is designed for the student who is interested in the ownership and management of a small business enterprise.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

SLS 1101 - College Success

3 Credit Hours
(Fall, Spring, Summer)

A course designed to focus on developing practical study skills to enhance academic success. Skills taught in this course are time management, concentration/memorization, listening, note taking, test taking, use of college resources, establishing goals, identifying learning styles, developing career choices and learning to cope with personal issues that face many college students.

SLS 1201 - Service Learning Seminar

1 Credit Hour
(Offered as needed)

A seminar course designed to enhance and reinforce the value of civic responsibility and to provide students with a community service program opportunity by volunteering in community agencies in the public and private sectors.

SLS 2505 - Critical Thinking

3 Credit Hours
(Fall, Spring)

This course is designed to teach students to become critical thinkers and to show students how to apply their thinking skills to everyday problems and issues in college, career, and personal settings. Based on discussions of timely issues, students will learn to use critical thinking.

SPC 1006 - Essentials of Speech

1 Credit Hour †
(Offered as needed)

This course can be used to satisfy missing transfer requirements and/or oral components required in certain programs. Individuals participate in the preparation and presentation of speeches.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 1608 - Public Speaking

3 Credit Hours †
(Fall, Spring, Summer)

Emphasis is on assisting the individual to develop his/her potential in oral communication. Individual participation in preparation and presentation of speeches reinforced by continuing group analysis and constructive criticism.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPC 2300 - Interpersonal Communication

3 Credit Hours †
(Fall, Spring)

This course studies the speech communication principles involved in one-to-one interaction, comprehensive listening, conflict resolution, family and group communication and intrapersonal thought. Learning techniques may include small group participation, role play, as well as formal and informal presentations.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

SPN 1120 - Spanish I

4 Credit Hours ♦
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading, and writing. Covers all basic structures of the language.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

SPN 1121 - Spanish II

4 Credit Hours
(Fall, Spring, Summer)

Pronunciation and grammatical structures of Spanish, with emphasis upon balanced development of all four skills – listening, speaking, reading and writing. Covers all basic structures of the language.

Prerequisite(s): SPN 1120 or an equivalent course with a grade of "C" or better.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2220 - Spanish III

4 Credit Hours
(Offered as needed)

Intermediate level review of grammar, readings in Spanish Literature, and development of conversational and writing skills.

Prerequisite(s): SPN 1121 or an equivalent course with a grade of "C" or better.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

SPN 2221 - Spanish IV

4 Credit Hours
(Offered as needed)

Completion of intermediate level review of grammar, readings in Spanish literature, and development of conversational and writing skills.

Prerequisite(s):
SPN 2220 or an equivalent course with a grade of "C" or better.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs' common prerequisites.

STA 2023 - Statistics

3 Credit Hours ♦
(Fall, Spring, Summer)

This course provides a general introduction to understanding and applying statistical terms and concepts. Topics include the following: descriptive statistics, probability, random variables, discrete and continuous probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, two sample inferences, correlation, and simple linear regression. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): completion of MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

STA 2122 - Statistical Applications

4 Credit Hours
(Offered as needed)

This course is designed for students pursuing psychology, education, and some specialized degrees. The course is an introduction to understanding and applying statistical concepts. Topics include: descriptive statistics, probability distributions, one and two sample hypothesis testing, confidence interval estimation, correlation, regression, and analysis of variance. Non-symbolic graphing calculators are required. The TI-83/84 Series is recommended. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): MAT 1033A or equivalent with a "C" or better, or appropriate placement score.

SYG 2000 - Sociology

3 Credit Hours ♦ ♦
(Fall, Spring, Summer)

An introduction to the basic theories, concepts, and descriptions of individuals, groups, and societal behaviors. Basic themes include an overview of culture, socialization, deviance, and social institutions, with an emphasis on the dynamics of families, government, and economic influences.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

◆ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

SYG 2010 - Social Problems

3 Credit Hours ◆ ¶
(Fall, Spring, Summer)

Introduction to the sociological study of the nature of social problems to insure understanding of their impact on the individual, the group and social institutions in societal and cultural settings. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

❖ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

SYG 2430 - The Family and Society

3 Credit Hours
(Fall, Spring, Summer)

An examination of the problems which arise out of participation in marriage, family and community situations. Designed to provide students with a basic understanding of the dynamics of family interaction, the effects upon the children, and the family's relationship to and participation in the community.

TAR 2121C - Architectural Drafting

3 Credit Hours
(Offered as needed)

Architectural design and development of residential and light commercial buildings to include: development and construction of good architectural freehand lettering, VA and FHA approved residential house plans, "Good Sense" house plans as defined in the Arkansas Plan, and heat loss/heat gain calculations.

Prerequisite(s): ETD 1102 or ETD 1112 or equivalent.

TAX 2000 - Federal Income Tax: Individual

3 Credit Hours
(Spring)

Federal Income Taxes. Determine income tax for individuals, interpretations of Internal Revenue Code and

Regulation, tax planning and advisory service. Brief introduction to partnership, corporation, estate and gift taxes. Extensive practice problems in individual income tax returns and research in tax questions.

Prerequisite(s): MTB 1103 is required and knowledge of basic computer and keyboarding skills are strongly recommended.

THE 1905A - Independent Study – Theater

1 Credit Hour
(Offered as needed)

A defined independent study which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule. Departmental approval required. Placement test is required. The course includes Writing-Across-The-Curriculum. If used to meet Gordon Rule requirements for general education, a minimum grade of "C" is also required.

Prerequisite(s): Approval from department chair, a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

THE 2000 - Theatre Appreciation

3 Credit Hours † ♦ ¶
(Fall, Spring, Summer)

An introduction to theater and theatrical production. Topics span a wide range of interest – critical, historical, aesthetic and practical – intended to lay a foundation for further knowledge and skill of the theater. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education. This course contains an oral communication component and may be used to satisfy the Speaking-Across-the- Curriculum requirement.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

† Courses listed with this symbol address NWFS's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

♦ Courses listed with this symbol are Florida State Core Courses and are protected in transfer to other public state institutions as meeting the state **Core General Education** requirements.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2071 - Humanities – Cinema Appreciation

3 Credit Hours † ¶
(Fall, Spring, Summer)

An introduction to the origin, development, cultural aspects and analysis of cinema topics. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communication/verbal/reading achievement or successful completion of ENC 0025 and REA 0017.

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2300 - Dramatic Literature

3 Credit Hours † ¶
(Fall, Spring)

Survey of dramatic works from the Greeks to the 20th century, with emphasis on the plays of the 19th and 20th centuries; intensive investigation and script analysis with reports, lectures and discussions. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): ENC 1101

† Courses listed with this symbol address NWFSC's **Speaking-Across-the Curriculum** student learning outcome, namely that all associate degree graduates are competent in basic public speaking skills.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

THE 2304 - Script Analysis

3 Credit Hours
(Offered as Needed)

An introduction to the examination and analysis of play scripts as preparation for production. Students will read plays from various periods and genres, and analyze such dramatic elements as plot, theme, character, dialogue, and style.

THE 2820 - Musical Theater Workshop

3 Credit Hours
(Summer)

An introduction to creative dramatics and children's theater. Topics span a wide range of interests; creative experience, children and theater, workshop procedure, script selection, rehearsal and performance.

THE 2821 - Musical Theater Workshop II

3 Credit Hours
(Summer)

Creative dramatics introduces the many elements of theater: dance, voice and musical theater. Topics span a wide range of interests: the creative process, workshop procedures, rehearsal and performance. Creative Dramatics will focus on producing a final performance.

Prerequisite(s): THE 2820.

THE 2930 - Theater – Special Topics

3 Credit Hours
(Fall, Spring)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

TPA 1210 - Stagecraft

3 Credit Hours
(Fall)

This course is an introduction to the principles of stagecraft: stage terminology, stage safety, instruction in proper use of shop tools, basic theater construction methods, understanding of theatrical rigging, and understanding of general background practices.

TPA 1290 - Technical Theatre Lab I

1 Credit Hour
(Offered as Needed)

This course is designed to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

TPA 1291 - Technical Theatre Lab II

1 Credit Hour
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1290

TPA 1940 - Internship in Theatre Design or Production

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the technical theatre field.

TPA 2063 - Principles of Scenic Design

3 Credit Hours
(Offered as Needed)

This course is a detailed introduction to the principles and techniques used in scene design. The course will include the discussion and practice in analyzing scripts, visualizing a design concept, drafting, paint elevations and rendering and/or modeling techniques.

Prerequisite(s): TPA 2343

TPA 2212 - Sound Production for the Stage

3 Credit Hours
(Offered as Needed)

This course is an introduction to audio production and reinforcement for the stage. Students will learn how to use and maintain equipment, record and edit sound effects, and mixing live sound. Emphasis will be placed on digital audio techniques and equipment.

TPA 2220 - Lighting Design

3 Credit Hours
(Spring)

An introduction to stage lighting. Topics include history of stage lighting, fundamentals of light and illumination, lighting control, and lighting practices.

Corequisite(s): TPA 1210

TPA 2232 - Introduction to Costuming Technology

3 Credit Hours
(Fall, Spring)

An introduction to costume techniques and wardrobe practices. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in theater costumes.

TPA 2276C - Entertainment Technology - Crafts

3 Credit Hours
(Spring)

This course presents the practices and principles of advanced woodworking, welding, smithing, casting, ceramics, plaster work, fiberglass and plastic technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented that will use items created in a realized production.

Prerequisite(s): TPA 1210.

TPA 2292 - Technical Theatre Lab III

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 1291

TPA 2301 - Technical Theatre Lab IV

2 Credit Hours
(Offered as Needed)

This course is designed to continue to complement other technical theatre courses by giving the student the opportunity for hands-on interaction in a structured lab setting. Students will be assigned duties appropriate for their skills that will synthesize the classroom experience.

Prerequisite(s): TPA 2292

TPA 2331 - Costume Construction

3 Credit Hours
(Offered as needed)

An introduction to costume construction techniques and wardrobe design. Topics span a wide range: costume construction techniques, problems in costumes, costume history, construction styles, sewing machine practices, seam finishes, flat pattern layout and production techniques. This course is intended to develop practical experiences in costume construction.

Prerequisite(s): TPA 2232

TPA 2343 - CAD for the Theatre

3 Credit Hours
(Offered as Needed)

This course is project oriented covering fundamental through advanced material in computer aided drafting and design and its application for the theatre.

TPA 2600 - Stage Management

3 Credit Hours
(Offered as needed)

This course is an introduction to the study and application of stage management as it relates to the manager portfolio, the stage manager morgue, rules and regulations relating to I.A.T.S.E., rules related to contracts, competence in

stage management, proper communication with directors, technical directors, designers, cast members and crews, competence in technical discussion areas and basic first aid.

TPP 1190 - Rehearsal and Performance I

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): experience in high school or a desire to learn.

TPP 1191 - Rehearsal and Performance II

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1190.

TPP 1192 - Rehearsal and Performance III

3 Credit Hours
(Fall, Spring, Summer)

An ensemble theater performance experience open to any student who wishes to develop rehearsal and performance skills. Students must participate in scheduled rehearsals and performances.

Prerequisite(s): TPP 1191.

TPP 1940 - Internship in Theatre Performance

3 Credit Hours
(Offered as Needed)

The emphasis of this course is on applied learning and vocational experience in the theatre performance field.

TPP 2110 - Acting I

3 Credit Hours
(Fall, Spring)

Through in-class performance the student will develop an understanding and proficiency of those skills of movement, voice, and expression which are required of a theatrical performer.

TPP 2111 - Acting II

3 Credit Hours
(Fall, Spring)

Through in-class performance, the student develops an understanding and proficiency in styles of acting from classic through modern.

Prerequisite(s): TPP 2110.

TPP 2120 - Improvisation

3 Credit Hours
Offered as needed

This course explores the use of creativity and imagination, engaging the actor in a wide variety of improvisational theatre games.

TPP 2141 - Acting in Shakespeare

3 Credit Hours
(Offered as needed)

This course is an introduction to the concepts, principles, and skills needed to develop characters in Shakespeare's plays. The course focuses on the hidden clues in the text to discover character choices and meaning. Specific analysis and the techniques of scansion are introduced as they relate to character interpretation. Application of these techniques will be presented in scenes and monologues.

TPP 2150 - Advanced Scene Study

3 Credit Hours
(Fall)

This course is a continuation of the processes and concepts of TPP 2111, Acting II, with the addition of new techniques to create dynamic and engaging characterizations through performance.

TPP 2220 - Auditioning

3 Credit Hours
(Offered as Needed)

This course explores audition techniques for the stage. Students will be better prepared to audition in professional settings.

TPP 2250 - Introduction to Musical Theatre

3 Credit Hours
(Fall)

Introduction to the study of Musical Theater analysis, creation, and performance with an emphasis on singing, dancing, and acting.

TPP 2301 - Directing I

3 Credit Hours
(Offered as needed)

A beginning course in the study, development and training in directing for the theater. Although not a prerequisite, students are encouraged to take Acting I and II before Directing I.

TPP 2302 - Directing II

3 Credit Hours
(Offered as needed)

Directing II is a continued study of the basic principles of directing for the theater with emphasis in the continued study, development and training in directing for the theater.

Prerequisite(s): TPP 2301.

TPP 2533 - Stage Combat I (Unarmed & Rapier)

3 Credit Hours
(Spring)

Through in-class study and performance the student will develop an understanding of and proficiency in the safe techniques of unarmed and rapier stage combat which are required of a theatrical performer. Application of these techniques will be presented in two scenes, one for unarmed and one for rapier.

TPP 2930 - Theater Performance – Special Topics

3 Credit Hours
(Fall, Spring, Summer)

A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

This course may be taken up to four times for credit.

WOH 1012 - World Civilization: Early Humans through Global Expansion

3 Credit Hours ♦ ¶
(Offered Fall, Spring, Summer)

A study of world history from 4000 BC to 1650 AD as it relates to the development of western civilization. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): A passing score on the standardized placement test measuring communication/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ Courses listed with this symbol have an **international and/or diversity focus** and meet Teacher Education Programs' common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

WOH 1022 - World Civilization: The Modern Period and Renaissance to the Present

3 Credit Hours ♦ ¶

(Offered Fall, Spring, Summer)

A study of history from 1650 AD to the present as it relates to the development of the modern world. History is analyzed in terms of social, religious, philosophical, political, and economic concepts rather than chronological facts. This is a Gordon Rule writing course and is part of the college's Writing-Across-the-Curriculum program. A minimum grade of "C" is required if used to meet Gordon Rule requirements for general education.

Prerequisite(s): a passing score on the standardized placement test measuring communications/verbal/reading achievement, successful completion of any required developmental English and Reading coursework with a grade of "C" or better, or exemption from placement testing.

♦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

¶ Courses listed with this symbol meet **writing requirements** outlined in FAC Rule 6A-10.030 and require a minimum grade of "C" when used for General Education credit.

ZOO 1010C - Zoology

4 Credit Hours

(Offered as needed)

An introduction to the major concepts of animal life, to include the structure, taxonomy, evolutionary relationships, and natural history of the major animal groups.

Upper Division College Credit Courses

Upper Division College Credit Courses

ACG 3083 - Accounting: Concepts and Practice

3 Credit Hours
(Fall, Spring)

This course explores the preparation and use of accounting information. Topics include mathematical procedures related to business decisions; terms and processes associated with the accounting cycle; financial statements for the sole-proprietorship, partnership and corporation; and foundations of managerial accounting.

Prerequisite(s): upper division standing and ACG 2001 and MAC 2233 are recommended. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 3320 - Law and Business

3 Credit Hours
(Fall, Spring)

An introduction to the legal setting in which modern business operates; emphasis is on public and regulatory law, basic contract law, the processes of administrative, statutory and common law and interstate commerce issues; includes an overview of the UCC and intellectual property.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4333 - Contract Formation and Administration

3 Credit Hours
(Fall, Spring)

Students will be exposed to the differences in the public and private sector contracting environments. Emphasis will be placed on the fundamentals of contract formation including sealed bidding, negotiations, and best value methods. Students will learn the fundamentals of contract administration including inspection and acceptance, quality control, contract changes, and disputes.

Prerequisite(s): upper division standing. Knowledge of basic computer and keyboarding skills are strongly recommended.

BUL 4931 - Acquisition Law Seminar

3 Credit Hours
(Spring)

This course addresses contract law as applicable to formation and administration of contracts with private and governmental agencies, with emphasis on the federal government. The following topics are also included: concepts of responsiveness and responsibility, bidding procedures, mistakes, negotiation procedures, changes, claims and dispute resolution. Students will explore the typical contracting problems that can lead to litigation.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

EDE 4223 - Integrating Art, Music, and Physical Education

3 Credit Hours (Summer)

This integrative course provides students with critical understanding of art, music, and physical education. Emphasis is placed on the effective integrative lesson planning and modeling techniques to art, music, and physical education in elementary schools. This course requires a minimum grade of "C".

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4226C - Integrated Language Arts, Social Science and Literature

3 Credit Hours (Fall, Spring)

This course is designed to prepare candidates to teach language arts and social science in elementary classrooms. Teacher candidates will develop units of study that integrate literature, language arts, with social science content. Emphasis is on constructivist principles and methodology. Teacher candidates will plan and deliver standards-based language arts and social science lessons designed to meet the needs of diverse learners including English language learners (ELLs) and students with exceptionalities. This course requires 18 hours of field experience in a K-6 classroom setting. Current background check (fingerprinting) acceptable to the district in which the field experience will take place is required for this course. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDE 4930C - Professional Elementary Educator

1 Credit Hour (Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace. Includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3214 - Human Development and Learning

3 Credit Hours (Summer)

This course is designed to cover the principles of learning and student development with applications to learning/teaching situations. Identification and analysis of students' academic, physical, cognitive, emotional, motivational, and social development is to be emphasized. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3430 - Measurement, Evaluation, and Assessment in Education

3 Credit Hours

(Fall, Spring)

This course studies the basic principles and methods of measurement, evaluation, and methods of test construction. Students will interpret standardized test scores, construct teacher-made tests and other classroom assessments, and evaluate portfolio and performance assessment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

EDF 3910A - Projects in Teacher Education

1 Credit Hour

(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing an artifact required in the B.S.E. program. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

EDF 3910P - Projects in Teacher Education – Field Placement

1 Credit Hour

(Offered as needed)

Directed study and individual projects designed to meet the needs of Teacher Education students completing field experience in the B.S.E. program. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 3343 - Instructional Strategies

3 Credit Hours

(Fall, Spring)

This course provides an overview of instructional models and strategies. Emphasis is placed on principles of state standards, instructional methods, and lesson planning and instruction. Students will develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student

populations. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C

EDG 3410 - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring) Online Only

Practicing teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. This course is restricted to practicing teachers.

Prerequisite(s): upper division standing.

EDG 3410C - Classroom Management, School Safety, Law, and Ethics

3 Credit Hours
(Fall, Spring)

Pre-service teachers are provided strategies for managing a safe, stimulating learning environment for all learners. This course emphasizes school safety, law, and ethics as they apply to schools, districts, and the learning environment. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

EDG 4940 - Internship

9 Credit Hours
(Offered as needed)

Supervised teaching in a public or private school. Student teaching assignments will be made by the department of teacher education field placement coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing with permission of department chair.

EDE 4223, EDE 4226C, EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, LAE 4343C, MAE 3350C, RED 3309C, RED 3511C, RED 4312, RED 4519C, SCE 3350C, TSL 3081C, TSL 4140C

EEC 3213 - Teaching the Language Arts In Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on the development of language and literacy in children ages birth through age four. Emphasis will be placed on understanding the process of emergent literacy including vocabulary and language, phonological awareness, print knowledge and comprehension; and on designing a developmentally appropriate

language arts program in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3227 - Art, Music, and Movement

3 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of the creative developmental process in the life of children from birth through four years old. Emphasis will be placed on the teacher's role in developing opportunities and materials for young children to express themselves creatively through music, drama, dance and two- and three-dimensional art and on providing varied opportunities for young children to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity in relation to the early learning and developmental standards. This course will require observing and participating in an early childhood classroom.

EEC 3320 - Principles and Methods for Teaching Early Childhood Social Studies

3 Credit Hours
(Offered as needed)

This course is designed to prepare students to teach social studies in the early childhood classroom. Emphasis is on implementing the project approach to investigate components of social studies to include: individual development and identity; people, places, and environments, technology and our world; and civic ideals and practices. The student will increase and apply knowledge and skills in the Florida Early Learning and Developmental Standards relevant to this content area.

EEC 3511 - Curriculum for Infants and Toddlers

3 Credit Hours
(Offered as needed)

The focus of this course will be on the design, implementation and evaluation of programming and curriculum that promotes growth and development of young children birth to three years old and aligns with the early learning and developmental standards. Study of typical and atypical development will be included. Emphasis will be on working effectively with families of infants and toddlers.

EEC 3524 - Professionalism/Program Development

4 Credit Hours
(Offered as needed)

Focus of this course will be on management and leadership in early childhood education programs. Topics will include mentoring adults, professional development, staff assessment, program evaluation, and child advocacy. Career options in the field of early childhood education will be explored. This course will require observing and participating in a program or agency related to early childhood education.

EEC 4404 - Families and Diversity

3 Credit Hours
(Offered as needed)

This course will focus on building positive relationships with families through communication and involvement. Focus

will include developing an awareness of diversity and multicultural considerations in working with families of young children. The course will explore the role of the family and the influence of the community on the development of young children in a diverse society; and will prepare the student to work effectively with families and communities.

EEC 4421 - Teaching Math and Science in Early Childhood Education

4 Credit Hours
(Offered as needed)

The focus of this course will be on developing an understanding of how concepts, skills and attitudes in early childhood mathematics and science are developed in young children ages birth through age four. Math topics will include number sense and operations, patterns, geometry, and measurement. Science topics will include scientific inquiry, physical science, life science and earth science. Emphasis will be on the alignment of the Early Learning and Developmental Standards with a developmentally appropriate approach to teaching math and science in the early childhood classroom. This course will require observing and participating in an early childhood classroom.

EEC 4613 - Systematic Observation and Assessment

3 Credit Hours
(Offered as needed)

The focus of this course will be on understanding the purpose of child assessment, implementing developmentally appropriate practices in formal and informal child assessment, and using assessment results to support learning, to identify special needs, to evaluate programs, and to respond to program accountability requirements. A field experience is required to practice various methods of assessment in an early childhood setting.

EEX 3070 - Methods of Inclusion and Collaboration

3 Credit Hours
(Summer)

This course examines the basic identification techniques and strategies used to promote academic and social integration and interaction of "mainstreamed" exceptional students. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

EEX 3604 - Classroom Management in Early Childhood Education

3 Credit Hours
(Offered as needed)

The focus of this course is on implementing effective classroom management practices including establishing an appropriate physical environment, setting up appropriate classroom routines and rules and creating a positive classroom community. Emphasis will be on strategies for guiding children's behavior, teaching social problem-solving skills and responding appropriately to challenging behaviors.

EEX 4201 - Young Children with Special Needs

3 Credit Hours
(Offered as needed)

The focus of this course will be on working with young children birth through age four in an inclusive early childhood classroom. Emphasis will be on identifying typical and atypical development, creating an inclusive early childhood learning environment, understanding special education law, developing an awareness of resources for inclusive practice to meet the needs of young children and their families.

EME 3410C - Integrating Technology in the Classroom

3 Credit Hours
(Fall, Spring)

In this course students will learn how to design a technology-rich classroom while contemplating the changing role of the teacher as a mentor/guide and student as a self-directed learner. Students will explore models of technology integration, classroom management, and administrative tasks that can be performed more efficiently using technology and learn strategies to select software and deal with legal and ethical issues when planning for technology integration. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3343 and EDG 3410C

ENV 4610 - Sustainable Logistics

3 Credit Hours
(Spring)

This course introduces students to current and future trends in logistics technology, policy and sustainability. Topics include, source sustainability, environmental impacts of existing and emerging technologies, and local environmental conditions and the global climate.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

ETI 4205 - Applied Logistics

3 Credit Hours
(Offered as Needed)

Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

EVR 3949 - Extended Internship, Environmental Science

4 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): Minimum Grade of "B" in any college-level science course and permission of instructor.

FIN 4402 - Financial and Economic Management

3 Credit Hours (Fall, Spring, Summer)

This course addresses the application of contemporary theory and practice in business resource allocation. Topics include: capital budgeting, equity and capital financing, capital management, analysis of financial statements, pricing theory, management of working capital and other topics relevant to the acquisition, financing and management of business assets and business decision making. Both the economic and financial perspectives will be presented.

Prerequisite(s): upper division standing and ACG 3083 are required. ECO 2013, STA 2023, and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3031 - Contemporary Business Practices

3 Credit Hours (Fall, Spring)

This course includes an orientation to and examination of opportunities and challenges facing managers in contemporary business organizations. Introduces the competencies of teamwork, communication, creative thinking, adapting to change, decision making and customer service through application to issues and problems across the general business spectrum.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3213 - Business and Administrative Communication

3 Credit Hours (Fall)

A comprehensive course in effective and efficient communications in the business world; includes preparation of reports, proposals and presentations, technical writing skills, composition of standard business documents including persuasive messages, sales letters, customer service correspondence, instructional memoranda, and policy and procedure development.

Prerequisite(s): upper division standing and ENC 1101 or departmental permission are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3434 - Ethics for Business Leaders

**3 Credit Hours
(Fall)**

This course uses a case study approach to focus on the significant ethical and legal issues facing today's business leaders. The theoretical and philosophical background will be presented along with real-life examples of ethics in the workplace. Cases and readings will be used to develop both analysis and application skills in the following areas: corporate and personal decision making, organizational culture and reputation, social responsibility and social reporting, customer relations, employee relations, financial reporting, technology, privacy/confidentiality and communications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3444 - Business Trends and Issues

**3 Credit Hours
(Fall)**

This course builds on the traditional themes and concepts of the general business area through specialized readings on trends and issues facing today's business and industry leaders. Students will read opinion pieces by noted in-field experts, as well as conduct basic research on contemporary issues such as information and workplace security, diversity in the workplace, outsourcing functions/services and global competition, with an eye to improving business operations.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3930 - Business Project and Acquisitions Terms and Concepts

**1 Credit Hour
(Fall)**

Students will apply specialized terminology of project and acquisitions management in various communication venues including short written documents and summary analyses. Emphasis will be placed upon the latest terms, abbreviations and jargon applicable to the field. Students will research selected terms and concepts in various contemporary periodicals and publications.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 3933 - Business Research

**1 Credit Hour
(Fall)**

This seminar-style course, offered in group or individual format, provides an introduction to various references, databases, periodicals, journals and other publications essential to the research of contemporary business issues; also included are methods of accessing resources via the Internet, designing search strategies, citing Internet resources and evaluating research materials.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4454 - Business in a High Technology Environment

3 Credit Hours
(Spring)

Presents the special challenges and opportunities of managing a high technology firm or a traditional entity operating in the high technology environment; addresses software/information security, recruiting technical personnel, outsourcing, equipment security, updating equipment, telecommuting and similar issues.

Prerequisite(s): upper division standing and GEB 3031 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4930 - Special Topics: Project Management

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4933 - Special Topics: Management

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4934 - Special Topics: Business Administration

3 Credit Hours
(Offered as needed)

An individual or group course designed to provide students with the opportunity to pursue a special topic(s) from the area of business administration in depth; may be repeated as topics change.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

GEB 4941 - Internship: Business

3 Credit Hours
(Offered as needed)

This is an individualized internship course that provides the student with supervised professional experience utilizing skills acquired in the program of study. The student will work with a qualified work site supervisor on approved

projects related to his or her degree in a professional environment. The work site supervisor will evaluate the student's performance, and the student will submit report(s), examples of projects completed, or other assignments as required by the instructor, as appropriate, during the internship experience for evaluation by the college instructor. If this course is taken for credit more than once, the student must, on the second and subsequent (if applicable) enrollment(s), develop in concert with the work site supervisor and college instructor a unique set of objectives and assessments.

Prerequisite(s): upper division standing and permission of the instructor are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3110 - Health Care Organization and Management

3 Credit Hours (Spring, Summer)

This course focuses on the structure and management of health care organizations, and the fundamental issues facing the U.S. health care system. Key topics include health status, the organization of health services, manpower, public health, financing, facilities, utilization, quality, regulation, and national health policy.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3111 - Introduction to Health Care Management

3 Credit Hours (Fall, Spring)

This course studies the administration, organization and delivery of health care in the United States. Topics to be examined include health care leadership, management, strategy, performance improvement, information technology, insurance, financial and human resources management, as well as ethical and legal concepts.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 3113 - Contemporary Issues in Health Care

3 Credit Hours (Spring)

This course is designed to introduce students to a range of issues related to health and health care in the United States. Course content will give students the opportunity to explore differing perspectives as they develop a deeper understanding of the issues and enhance their research and communication skills. The course will enable students to analyze and evaluate evidence regarding controversial issues. Students will develop and practice skills in formulating and writing well-informed, well-articulated arguments and reflections.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4191 - Health Information Systems

**3 Credit Hours
(Fall)**

This course focuses on the theories, concepts and principles of health information systems and development of critical thinking skills for use in practice/working in health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying evidence-based knowledge, will analyze the design and implementation of health care information systems.

Prerequisite(s): upper division standing and knowledge of basic computer and keyboarding skills are strongly recommended.

HSA 4922 - Capstone: Health Care Management

**3 Credit Hours
(Spring)**

This course integrates the information, skills, and abilities provided throughout the Health Administration Program in a capstone project. Students complete a project that demonstrates excellence by applying the knowledge gained from the core courses and materials studied throughout the program. Successful completion of the course requires demonstration of the achievement of program objectives and learning outcomes.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

HUS 4950 - Capstone: Human Resources Management

**3 Credit Hours
(Spring)**

This capstone will build upon and integrate the primary human resource management skills introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and develop their knowledge in the field of human resources.

Prerequisite(s): Senior standing and completion of program core and emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

ISC 4145 - Environmental Systems

**3 Credit Hours
(Offered as needed)**

Environmental Systems will expose students to a broad overview of the structure and processes occurring on Earth. Students will gain a broad understanding of the interactions between the atmosphere, biosphere, lithosphere, and hydrosphere. Course topics will be related to current environmental issues and our local ecosystems. This course is focused on Earth System Science content with development of methods specific to teaching middle school science as a secondary objective.

Prerequisite(s): (1) any two-course laboratory sequence in the natural sciences (i.e., Principles of Biology I & II, Principles of Geology I & II, College Chemistry I & II, Physics I & II, College Physics I & II, Anatomy & Physiology I & II); (2) any GLY course; (3) and either CHM1020 (Chemical Science) or PHY1020 (Physical Science).

ISM 3220 - Network Technologies for Information Professionals

**3 Credit Hours
(Fall)**

This course is designed to give the student an understanding of the various networking technologies and their practical application in the management of a business. The course also covers the technical issues involved in designing and implementing an efficient network for voice, data, and information networks.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3232 - Software Essentials

**3 Credit Hours
(Fall)**

This course covers a broad range of software topics as they apply to software management and systems analysis and design. Topics include, but are not limited to programming, the systems development life cycle (SDLC), systems management, interface design and Internet technology.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 3323 - Applications in Information Security

**3 Credit Hours
(Spring)**

This course helps develop the important security concepts relative to software application development and access control that provide the knowledge and skills necessary for the successful management of information security in an organization. Students will understand the environment where software is designed and developed as well as the critical role software plays in providing security to an organization's information systems. The course focuses on software development concepts that relate to security, and how access control methodologies fit into the entire enterprise architecture.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4011 - Information Systems Management

**3 Credit Hours
(Spring)**

This course provides a study of the language, concepts, structures, and processes involved in management of information systems, including the fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4480 - Electronic Commerce Systems and Strategies

3 Credit Hours
(Offered as needed)

This course is designed to familiarize the student with the management approach to defining and implementing e-commerce (EC) systems. The course addresses the digital economy, EC strategy and marketing, EC models (Business to Business, Business to Consumer, etc.) as well as EC architectures. The course will cover management and regulatory issues in EC such as internationalization, electronic payment methods, Internet fraud, mobile e-commerce, and current implementation technologies. Architectures and inter-dependence (i.e. integration) of systems will be covered.

Prerequisite(s): upper division standing and at least two information technology or computer science courses at a college or university level.

ISM 4930 - Special Topics - Technology Management

3 Credit Hours
(Offered as needed)

This is an individual or group course designed to provide students with the opportunity to pursue a special topic(s) in depth; may be repeated as topics change.

Prerequisite(s): Upper division standing and permission of instructor.

This course may be taken up to two times for credit.

LAE 4343C - Writing Across the Curriculum

3 Credit Hours
(Offered as needed)

This course prepares pre-service teachers by developing an understanding of the foundations of writing through the use of writers workshops and instructional strategies necessary to provide adequate instruction to emergent, novice, and transitional writers. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAD 3107 - Applied Discrete Mathematics

3 Credit Hours
(Fall)

This course builds on the foundation established in Introduction to Discrete Mathematics with further exploration in logic, mathematical reasoning, and mathematical proof writing. Topics include logic, set theory, boolean algebra, combinatorics, and graph theory with applications.

Prerequisite(s): Completion of MAC 2312 with a grade of "C" or better or concurrent enrollment in MAC 2312.

MAE 3350C - Principles and Methods for Teaching Mathematics K-8

3 Credit Hours
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in grades K-8. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4312C - How Children Learn Math

3 Credit Hours
(Offered as needed)

This course is designed to develop the skills and concepts necessary to deliver the mathematics curriculum effectively in the classroom. The content strongly reflects the curriculum emphases of the National Council of Teacher of Mathematics, and topics are presented using a process-oriented approach. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4930C - Professional Math Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in mathematics, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4940C - Teaching Methods in Middle Grades Math Field Experience

1 Credit Hour
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching mathematics in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

MAE 4945 - Internship - Middle Grades Math

9 Credit Hours

(Offered as needed)

Supervised teaching of Middle Grades Math in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430, EDG 3410C, EDG 3343, EEX 3070, EME 3410C, MAC 2312, MAD 3107, MAE 3350C, MAE 4312C, MAE 4940C, MHF 4404, MTG 2206, RED 3324C, RED 3335C, STA 2023, and TSL 3081C

MAN 3052 - Management Philosophy and Practice

3 Credit Hours

(Fall)

A comprehensive study of contrasting philosophies of management, current theories of leadership, management and supervision, as well as current trends and issues for business managers; focuses on applications and cases for development of competencies across all business functions and units; emphasis is placed on the cross-functional aspects of management, as well as the manager's need for a general business perspective.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3120 - Leadership and Group Dynamics

3 Credit Hours

(Spring)

An applied leadership course with a focus on case studies, projects and group interaction; includes theoretical background on group dynamics, small group behavior and motivation, power, types of groups, verbal and non-verbal communication skills and team-building. Emphasis will be placed on sociological and psychological dimensions of inter-group relations, including analysis and problem-solving through simulations, cases and similar activities which reflect a general business perspective, as well as leadership and group dynamics across a variety of business units/functions.

Prerequisite(s): upper division standing is required. Concurrent or prior enrollment in GEB 3031 and MAN 3052, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3240 - Organizational Behavior

3 Credit Hours

(Spring, Summer)

Designed to develop student understanding of individual, group and organizational issues that affect and shape businesses. Topics include motivation, communication, decision making, leadership, power, organizational structure, team performance, organization diversity and change management.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3310 - Issues in Human Resource Management

3 Credit Hours
(Fall, Spring)

Introduces the full range of human resource management functional areas, including recruiting and hiring staff, performance evaluations, employment regulations, discipline and termination, downsizing, compensation and benefits, job analysis, the organized labor setting, equity/diversity issues, and policy design. Approach will focus on current issues and applications.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3320 - Employee Staffing and Benefits

3 Credit Hours
(Fall)

An intermediate level course in employment staffing issues focusing on staffing patterns, organizational structures, job analysis and design, staffing efficiencies, employee assistance programs, staff projection models, and employee services.

Prerequisite(s): upper division standing and MAN 3310 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3350 - Training and Development

3 Credit Hours
(Fall, Summer)

Covers various staff training and development models, effective workshop techniques, designing and implementing company-wide training and development programs. Assessment of training needs, training and development as a benefit and setting development goals; students will design and conduct at least one workshop/training session for fellow students.

Prerequisite(s): upper division standing and GEB 3213 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3505 - Production Operations and Logistics Management

3 Credit Hours
(Spring)

This course examines the integration of production operations and logistics management and how this enables an organization to compete successfully in business. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, and inventory management.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3574 - Acquisition Management

**3 Credit Hours
(Spring)**

Students will be exposed to the fundamentals of government acquisitions. This course provides conceptual material on government acquisitions, to include program planning, execution, and control. Students will be introduced to the elements of program risk and learn risk management techniques. The systems engineering process will be emphasized to include work breakdown structures, cost -- benefit analysis, and scheduling.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3583 - Project Management

**3 Credit Hours
(Spring)**

In this introductory Project Management course, students will be exposed to the fundamentals of general project management. This course provides conceptual material on project management techniques appropriate in system/subsystems management. Topics include project management functions, project manager roles and responsibilities, the project life cycle, and conflict resolution. Emphasis will be placed on project oversight issues across the various business units and functions.

Prerequisite(s): upper division standing and GEB 3031 or MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3593 - Logistics and Supply Chain Management

**3 Credit Hours
(Fall)**

Logistics and Supply Chain Management provides an introduction to logistics concepts in both the business and government environment. The student will gain an appreciation of the various logistics missions encountered both in the business world and government acquisition and support programs. The key concept is that logistics is a process that adds value to the end product whether it is a commercial item for a customer or a system used by the government which must achieve a desired state of readiness through an established or acquired infrastructure. Emphasis will be placed on the challenges related to providing logistical support for procurement, manufacturing, and life cycle support. The course will focus on supply chain strategies, logistics information systems, order fulfillment, inventory, demand forecasting, and collaborative planning. In addition, the student will be introduced to transportation constraints, third party logistics (3PL), warehousing, materials handling, international logistics and facility planning.

Prerequisite(s): Upper division standing and MAN 3052 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3610 - Global Logistics Management

**3 Credit Hours
(Offered as Needed)**

Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the

multinational enterprise and management problems associated with operations in diverse systems are analyzed.

Prerequisite(s): Upper division standing and MAN 3593 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3786 - Sustainable Enterprise Planning

3 Credit Hours
(Offered as Needed)

This course introduces students to assessment tools, design and construction considerations, and operating planning requirements for sustainable enterprises. Students will learn about the ecological and economic benefits of sustainability/green practices. Additionally, they will learn how product, process, and service decisions affect sustainable enterprise concepts. Today's enterprises focus on social and environmental challenges, marketing, supply chain decisions, recycling, reusing, reconditioning, and other product and service decisions in order to realize a competitive advantage. This course will focus on best practices, case studies, evolving trends, and experimental efforts regarding sustainable/green systems.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 3903 - Operations Research

3 Credit Hours
(Fall)

Operations Research is a science of modeling and optimization. It allows to model real-world problems by using mathematics, statistics and computers. It provides us the tools and theories to solve real-world problems by finding the optimal solutions to models subject to constraints of time, labor, resource, materials and business rules. With Operations Research, people make intelligent decisions to develop and manage their processes and businesses.

Prerequisite(s): Upper division standing is required. STA 2023, MAC 1140, and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4162 - Customer Relations for Managers

3 Credit Hours
(Spring)

This course focuses on relationship building for all customers of an organization. The impact of culture and diversity on business relationships, successful negotiation strategies, and promotion of the organization through media relations are discussed. Emphasis is placed on the manager's role in improving customer relationships by creating a customer-focused, organizational climate.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4401 - Labor Relations

3 Credit Hours
(Offered as needed)

This course explores the impact of employee organizations on labor relations, current problems, conflicts and trends and includes the development of managerial approaches to achieve labor management cooperation.

Prerequisite(s): upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4520 - Quality Management

3 Credit Hours
(Spring)

This course examines the significance of quality as a primary competitive strategy for tomorrow's successful business organizations. The impact of quality focus on increasing customer satisfaction is changing the manner in which business organizations function. Students will recognize that quality focused business organizations are evolving into very different environments in which to work and manage. This quality imperative is relevant for both industrial and service sector organizations. Students will be exposed to the critical issues of total quality management through reading, case studies, class discussion, field trips and outside speakers. The students are expected to gain insight and understanding regarding the meaning of quality, how organizations develop a quality focus, and the continuous nature of quality management. This course is appropriate for students who have an interest in: (1) managing the total quality program in a business organization, and/or (2) working for a business organization which already made a strong commitment to total quality management.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4555 - Quality Certification: ISO 9000

3 Credit Hours
(Fall)

A comprehensive study of internationally uniform quality standards (ISO 9000 and the steps to individual and organizational certification; includes management responsibility, quality system documentation, contract review, design control, process control, inspection and testing, corrective actions and other certification topics.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4570 - Purchasing and Materials Management

3 Credit Hours
(Fall)

The management of purchasing and the materials for production processes. Cost/price analysis, computer systems, forecasting, materials requirements, negotiations, and contracting are included.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4594 - Reverse Logistics

3 Credit Hours
(Offered as Needed)

In this course forward-moving logistics is compared to reverse-moving logistics. Both goods and information are discussed. Topics include federal and state regulations, waste management, recycled materials, technology, financial controls, stakeholders, and performance measurement.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4595 - Logistics Technology

3 Credit Hours (Offered as Needed)

This course provides an overview of the use of technology (bar codes, gps, and radio frequency identification tags) in logistics to control recalls, returns, recycling, and waste management. Management functions, data synchronization, and interrelationships between different technologies to capture data regarding products moving in a logistics system are also discussed.

Prerequisite(s): Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4720 - Strategic Planning and Management

3 Credit Hours (Spring)

This course addresses the integration of organizational functions to achieve competitive advantage and organizational harmony through strategy formulation, implementation and evaluation. Activities include case studies and a strategic planning simulation. Topics include change theory, decision-making, planning models, and strategic planning processes as applied in a variety of business settings, units, and functions.

Prerequisite(s): Upper division standing and successful completion of GEB 3031 and MAN 3052. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4930 - Capstone: Acquisition Management

3 Credit Hours (Spring)

In this seminar, students will have the opportunity to participate in hands-on projects applying the techniques in MAN 3574 - Acquisition Management. Emphasis will be on government acquisition management. Students will create a work-breakdown structure, a project schedule, and perform a cost-benefit analysis of alternatives. Earned value management will be introduced as a method of program control. Students will also identify potential risk areas and suggest mitigation plans.

Prerequisite(s): Senior standing and completion of program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4931 - Capstone: Project Management

3 Credit Hours (Spring)

This seminar will build on the basic project management skills by introducing the basic tools used by project

managers. The student will learn management techniques for project planning, budgeting, scheduling and control techniques, cost estimating and project management software applications. Students will be exposed to the relationship of purchasing and contracting with project management.

Prerequisite(s): Senior standing and completion of MAN 3583 and program core emphasis courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4932 - Contract Negotiations Seminar

3 Credit Hours
(Offered as needed)

This seminar will refine the negotiation skills of the student through the use of readings, class discussions, case analyses, and practical exercises. Students will be introduced to goals, objectives, and strategies, as well as using appropriate tactics and methods to achieve them. The course will also help students understand the role of communication, power, and personality in the negotiation process and facilitate them assessing their personal abilities and traits as they relate to negotiation. While the course will focus on negotiation of defense-related contracts, the principles covered will apply to the entire range of interpersonal relationships.

Prerequisite(s): upper division standing and BUL 4333 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4933 - Best-Value Source Selection Seminar

3 Credit Hours
(Offered as needed)

Focus is on the best-value source selection process. Students will walk through the acquisition cycle. Topics will include acquisition strategy, pre-solicitation activity, preparation for evaluation, initial proposal evaluation, discussions or negotiations, final proposal revision and recommendations and decisions.

Prerequisite(s): upper division standing and MAN 3574 are required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4934 - Logistics Management Seminar

3 Credit Hours
(Offered as needed)

A special topics course conducted in group or individual format; focus is on the terms, concepts and processes associated with logistics and distribution in the contemporary business environment.

Prerequisite(s): upper division standing and MAN 3583 or MAN 3574. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAN 4940 - Capstone: Supervision

3 Credit Hours
(Spring)

This capstone course will build upon and integrate the primary management skills and concepts introduced in prior emphasis courses. Students will have the opportunity to work on a hands-on project to demonstrate, apply, and

develop their knowledge. This course will also cover basic entrepreneurial principles, which will be integrated throughout the student-led projects.

Prerequisite(s): Senior standing and completion of program core and emphasis business courses. Knowledge of basic computer and keyboarding skills are strongly recommended.

MAR 4333 - Marketing Strategy

3 Credit Hours
(Fall)

This upper-level marketing course is aimed at the marketing functions of a business, with emphasis on how strategies are developed and how the marketing mix is created to meet the wants and needs of consumers.

Prerequisite(s): Upper division standing required and knowledge of basic computer and keyboarding skills are strongly recommended.

MHF 4404 - History of Mathematics

3 Credit Hours
(Offered as needed)

This course is for students pursuing an education degree with an emphasis in middle school and secondary mathematics. This course covers the evolution of mathematics from early number systems through modern mathematics. If used to meet NWFSC Teacher Education program requirements, this course requires a grade of "C" or better.

Prerequisite(s): Completion of MAC 2311 with a grade of "C" or better or concurrent enrollment in MAC 2311.

MSL 3201 - Adaptive Team Leadership

3 Credit Hours
(Fall)

Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3202 - Leadership in Changing Environments

3 Credit Hours
(Spring)

Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, and apply principles and techniques of effective written and oral communication.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 3203 - The Joint Environment

3 Credit Hours
(Offered as Needed)

Provides an introduction to the joint military environment. The course provides an overview of the development of national and regional policy through the national Security Council and national security system.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4301 - Developing Adaptive Leaders

3 Credit Hours
(Fall)

Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

MSL 4302 - Leadership in a Complex World

3 Credit Hours
(Spring)

Capstone course to explore topics relevant to second lieutenants entering the army, describe legal aspects of decision making and leadership, analyze army organization from tactical to strategic level.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

NSP 3640 - Nursing Care of Military and Veteran Populations

3 Credit Hours
(Spring)

This course is designed to identify the unique healthcare needs of military and veteran populations in the United States in order to prepare students and practicing nurses to develop competence in designing nursing interventions within civilian and government agencies in which military members and veterans seek healthcare. In accordance with the ANA's pledge (2012) to raise awareness of the unique conditions and needs of military veterans and their families, this course supports the Joining Forces initiative to further nursing training to include specialized topics such as traumatic brain injury, posttraumatic stress disorder, trauma rehabilitation, and understanding the military and veteran's healthcare delivery system.

NSP 4275 - Introduction to Critical Care Nursing

3 Credit Hours
(Offered as Needed)

This course examines the needs of the critically ill client. As part of the human experience, the integrity of the

individual and family may be disrupted by a critical illness. During such time, the critical care nurse assists the individual and family to restore life processes to a state of dynamic equilibrium. This course emphasizes the involvement through use of scientific rationale and application of the nursing process in providing care to the individual client and family. Critical care concepts and skills for promoting client and family well-being are stressed.

NUR 3067C - Health Assessment

3 Credit Hours (Fall, Summer)

This course is designed to develop the student's knowledge for obtaining and recording a systematic, comprehensive health history, psychosocial assessment, and physical examination of the adult. The course involves the synthesis of nursing, biologic, psychologic, and sociocultural knowledge and theories as they apply to the findings obtained in the comprehensive health assessment of clients of various ages. During the fieldwork experience, emphasis will be placed on collection of a database through physical assessment, history taking and interviewing.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3071 - Writing for Success in Nursing

1 Credit Hour (Fall, Spring, Summer)

This course is designed to develop the student's knowledge for writing at the upper division nursing level. The course includes information regarding use of APA format and scholarly writing resources.

Prerequisite(s): Student must be a Registered Nurse to take this course.

NUR 3080 - Dimensions of Baccalaureate Nursing Practice

3 Credit Hours (Fall, Summer)

This course will provide Registered Nurses, who are returning to school to earn a Baccalaureate degree, an opportunity to advance professional practice concepts. As designed, the course engages the student intellectually in an ongoing professional dialogue and journey with peers, colleagues, and instructors that serves to broaden the student's professional development and builds on preexisting knowledge and experiences. The course curriculum is written for adult learners with the characteristics of self-direction, prior experience, applicability to practice, and motivation to meet the challenge to expand their knowledge base and to utilize advanced critical thinking skills.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 3678 - Nursing Care of Vulnerable Populations

3 Credit Hours (Offered as needed)

Caring for the vulnerable members of society is a function nurses perform without regard for their own ambitions, personal safety, and financial security. This course is designed to pull together material from different cultures and at risk groups of individuals considered vulnerable populations. Key concepts will be discussed that will provide a basic structure for caring for the vulnerable, the relevance of nursing theories to vulnerable populations, nursing research

showing the kinds of phenomena nurses study, and many ideas about learning to work with and advocate for vulnerable individuals.

NUR 3826 - Nursing Ethics

3 Credit Hours
(Offered as needed)

This course provides an in-depth exploration of ethical principles and moral reasoning as the foundation of nursing practice. The ANA Code of Ethics will be used as a framework for examining current issues in healthcare delivery across the age span from reproductive issues to end-of-life care.

Prerequisite(s): Must be an RN or ASN student.

NUR 3837 - Health Care Issues

2 Credit Hours
(Fall, Spring)

This course provides a forum for the exploration and evaluation of concerns germane to contemporary nursing. The focus of this course is on the nursing profession and current major issues and problems that concern it. Social forces influencing changes in the nursing profession are analyzed in terms of historical antecedents and their current manifestations. Recently passed, and pending legislature at both the national and state levels is emphasized.

Prerequisite(s): Current RN Licensure.

NUR 3955 - Portfolio I

1 Credit Hour
(Fall, Summer)

This course will provide RN to BSN students an opportunity to develop an electronic professional portfolio to express one's professional nursing expertise and proficiency.

Prerequisite(s): Admission to the BSN program and meets all enrollment conditions.

NUR 4125 - Clinical Pathophysiology

3 Credit Hours
(Fall, Spring)

This course examines in detail the underlying process involved in the development, evolution, manifestations, and complications of common clinical diseases across the life span, and compares normal and abnormal states. The biological bases for therapeutic clinical actions are examined.

Prerequisite(s): NUR 3067C

NUR 4165 - Evidence-Based Practice: Incorporating Nursing Research

3 Credit Hours
(Fall, Spring)

This course is designed to provide the RN to BSN student with an introduction to the research process and evidence based practice. The purpose of the course is to stimulate interest in nursing research; to enable students to understand and judge the usefulness of scientific findings; and to develop an understanding of how clinical proficiency is combined with experimental proof to produce nursing practices based upon evidence. An on-line teaching method is used with optional workshops available to students.

Prerequisite(s): STA 2023.

NUR 4615C - Family and Community Health

5 Credit Hours
(Fall, Spring)

The Family and Community Health Nursing course is designed to facilitate the conceptualizing of family, population groups, and community as units of care from diverse cultures, ethnic, and social backgrounds. The student is provided a fieldwork opportunity to assess the health needs of selected families and groups in the community setting with selected health promotion, risk reduction, and disease prevention. The nursing process is used to examine multiple influences impacting life-course experiences of families and communities to enhance functioning.

Prerequisite(s): NUR 3067C, NUR 3080, admission to the BSN program and completion of all General Education requirements.

NUR 4827C - Nursing Leadership and Management

5 Credit Hours
(Spring, Summer)

This course provides students with an evidence-based study of leadership, collaboration, and coordination in healthcare settings. Students develop an evidence based paper to deal with key leadership and management issues related to professional goals. Nursing leadership and management fieldwork focuses on the roles and functions of the professional nurse in these roles. Issues associated with healthcare delivery are explored. Fieldwork provides an opportunity to plan, implement and evaluate a change in the practice of nursing.

Prerequisite(s): NUR 3080, NUR 4165, NUR 3067C, NUR 4615C.

NUR 4956 - Portfolio II

1 Credit Hour
(Spring, Summer)

This course will provide students an opportunity to complete and evaluate their electronic professional portfolio to express their professional nursing expertise and proficiency.

Prerequisite(s): NUR 3955, NUR 3080; Pre or Corequisite: NUR 4827C.

PAD 3003 - Public Service Operations

3 Credit Hours
(Offered as Needed)

An introduction to public administration and policy in America. This course is designed to provide undergraduate students a basic understanding and appreciation of the administration of the public sector. It is intended to provide an

overview of public administration for students interested in public service and for students, who as good citizens, want an appreciation of the complexities of public management.

Prerequisite(s): upper division standing.

PAD 3882 - Issues in Public Service Administration

3 Credit Hours
(Offered as Needed)

This course focuses on current issues and trends in the field of public service administration. The course is structured to introduce management and administrative topics in public service, examine the implications to the field, and reformulate recommendations. This course will begin developing skills in project design and presentation. This course will enhance critical thinking skills.

Prerequisite(s): upper division standing.

PAD 4878 - Capstone: Public Service

3 Credit Hours
(Offered as Needed)

This course provides an opportunity for the student to complete a professional project and apply information and skills studied in core and concentration program courses under the direction of the professor. Successful completion of the course requires demonstration of achievement of the program's learning outcomes. This course should be completed in the last term before graduation.

Prerequisite(s): upper division standing.

QMB 3250 - Quantitative Methods for Business Decisions

3 Credit Hours
(Fall, Spring)

An examination of the quantitative methods, statistical concepts, and procedures used in business and finance including methods of maximization and minimization objective functions, the analysis and use of statistic methods for planning, decision making, and forecasting.

Prerequisite(s): Upper division standing is required and knowledge of basic computer and keyboarding skills are strongly recommended.

RED 3309C - Early and Emergent Literacy K-2

3 Credit Hours
(Fall, Spring)

This course is designed to increase the understanding of early literacy development and the conditions which promote total literacy from birth through lower elementary grades. Language theory and current research are used to shape informed practices regarding literacy development. Connections are made among all aspects of literacy learning: reading, writing, listening, speaking and attitude development. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3324C - Teaching in the Middle Grades Curriculum

3 Credit Hours
(Fall, Spring)

This course presents theory and methodology for teaching reading at the middle school level with emphasis on strategies for vocabulary and comprehension, evaluating student progress in reading, and integrating reading and study skills into content area instruction across the middle school curriculum. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3335C - Teaching Reading in the Content Areas

3 Credit Hours
(Fall, Spring)

This course addresses strategies, materials, and skills for teaching reading in content areas. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3324C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 3511 - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/ literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a minimum grade of "C" or better and is restricted to practicing teachers.

Prerequisite(s): RED 3309C and upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

RED 3511C - Intermediate Literacy 3-6: Reading and Thinking

3 Credit Hours
(Fall, Spring)

This course combines the theory and practice in the teaching of reading/literacy in the elementary intermediate grades. Procedures for meeting individual differences, differentiated instruction, selected use of materials, and classroom organizations will be examined. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4312 - Integration of Assessment into Classroom Reading

3 Credit Hours

(Summer)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on integrating assessments into the curriculum to strengthen instructional strategies and student success. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better.

Prerequisite(s): RED 3309C, RED 3511C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4519C - Diagnostic and Instructional Interventions in Reading

3 Credit Hours

(Fall, Spring)

This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Emphasis is placed on diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C and upperdivision standing

Prereq/Corequisites: EDG 3410C and EDG 3343

RED 4854C - Reading Field Experience

2 Credit Hours

(Fall, Spring)

This course provides application of knowledge of reading development to reading instruction. Emphasis is placed on increased reading proficiency for struggling students, including students with disabilities and students from diverse populations. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): RED 3309C, RED 3511C, RED 4312, RED 4519C, upper division standing with permission of department chair

SCE 3350C - Principles and Methods for Teaching Science K-8

3 Credit Hours
(Fall, Spring)

This course provides techniques, methods and materials of instruction for teaching science in grades K-8. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4930C - Professional Science Educator

1 Credit Hour
(Fall, Spring)

This course is designed to prepare the pre-service teacher to transition into the workplace, and includes resume writing, professional dress and demeanor, interview techniques, refining professional portfolio, class discussion of issues common to teacher interns in science, and review strategies for certification exams. This course requires a grade of "C" or better.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4940C - Teaching Methods in Middle Grades Science Field Experience

1 Credit Hour
(Fall, Spring)

In this course, students will apply knowledge of teaching strategies, methods and materials for teaching science in a middle school classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

SCE 4945 - Internship - Middle Grades Science

9 Credit Hours
(Offered as needed)

Supervised teaching of Middle Grades Science in an assigned school. Student teaching assignments will be made by the Department of Teacher Education Field Placement Coordinator. This course requires a minimum grade of "C". Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): Upper division standing with permission of department chair.

EDF 3214, EDF 3430, EDG 3343, EDG 3410C, EME 3410C, EEX 3070, ESC 1000, EVR 3949, ISC 4145, MET 1010C, RED 3324C, RED 3335C, SCE 3350C, SCE 4940C, TSL 3081C, and CHM 1020 or PHY 1020

SPN 3036 - Spanish for Health Care Providers

3 Credit Hours
(Offered as needed)

Spanish for Health Care Providers is designed for individuals majoring in nursing or working in health-related areas. The course focuses on vocabulary needed for the healthcare workplace, with grammar taught as a task-based practical skill. Students will learn phrases used to complete health assessments which include conducting interviews, filling out forms, writing reports, and reading and understanding medical articles and brochures. Prevalent disease processes will be discussed as well as cultural practices that affect health care, specifically the health care of Spanish-speaking patients. This course does not fulfill any part of the Florida state language requirements.

TRA 3132 - Procurement Management

3 Credit Hours
(Offered as Needed)

Purchasing is required by all types of goods-producing & service-providing organizations in such sectors as manufacturing, agriculture, health care, & government. This professional business function tries to buy the right good or service at the right quality, in the right quantity, at the right time, at the right price, from the right source, with delivery at the right place.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

TRA 4203 - Principles of Logistics

3 Credit Hours
(Offered as Needed)

Overview of logistics function within a firm and in the context of integrated vertical systems. Topics include customer service, information flow, inventory control, materials management, order processing, packaging, physical distribution.

Prerequisite(s): Upper division standing is required. Knowledge of basic computer and keyboarding skills are strongly recommended.

TSL 3081 - TESOL Issues and Practices

3 Credit Hours
(Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a minimum grade of "C." Neither field

experience or a background check/fingerprinting are required for current teachers enrolled in this course.

Prerequisite(s): Upper division standing

Prereq/Corequisites: EDG 3410C, EDG 3343

TSL 3081C - TESOL Issues and Practice

3 Credit Hours (Fall, Spring)

This course is designed to integrate the theories and principles of the Teaching of English to Speakers of Other Languages and applying them to classroom instruction. ESOL methodology and curriculum will be emphasized as they relate to current best practice in ESOL instruction. The student will increase and apply knowledge and skills in the Uniform Core Curriculum relevant to this content area. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

TSL 4140C - ESOL Methods, Curriculum and Assessment

3 Credit Hours (Fall, Spring)

This course is designed to build on the candidate's knowledge of applied linguistics and cross cultural communication. Candidates will extend their understanding of the role of language and culture in the classroom. This course will prepare candidates for effective planning, instruction, and assessment of ELLs in the classroom. This course requires a grade of "C" or better. Current background check (fingerprinting) acceptable to the District in which the field experience will take place is required for this course.

Prerequisite(s): TSL 3081C and upper division standing

Prereq/Corequisites: EDG 3410C and EDG 3343

Vocational Courses

Vocational Courses

CJK 0001 - Introduction to Law Enforcement

12 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to law enforcement, the process for becoming a certified law enforcement officer, and the requirements of the academy program. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0012 - Legal

63 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to introduce the student to the criminal justice system, the chain-of-command system in law enforcement, Constitutional Law, Florida Statutes, and the Police Code of Ethics. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0013 - Interactions in a Diverse Community

42 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enhance student awareness and understanding of human diversity issues and to teach students skills to enable them to effectively interact with people of diverse backgrounds. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0014 - Interviewing and Report Writing

54 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to help the student learn vital communication skills including interviewing, note-taking, statement taking, and report writing. It also helps the student to develop survival skills, stress management skills, and problem solving skills utilizing the SECURE model. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0020 - Law Enforcement CMS Vehicle Operations

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply vehicle operations knowledge, principles and techniques to the police driving environment. This course includes classroom instruction and practical application on the driving range. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0031 - CMS First Aid for Criminal Justice Officers

48 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. This course is designed to prepare prospective police officers to apply first responder knowledge and techniques to medical emergency situations. This course includes classroom instruction and hands-on practical demonstration. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or the Corrections Basic Recruit Academy.

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CJK 0040 - CMS Firearms

81 Clock Hours

(Offered as needed)

This course is a component of the Law Enforcement/Corrections Florida CMS Basic Recruit Academy. This course is designed to give the student basic skills and knowledge needed to safely operate a firearm, and shoot a handgun, and shotgun and/or rifle with a prescribed degree of accuracy. This course includes classroom instruction and firing range practice/qualification. This course is open only to students admitted to the Law Enforcement Florida CMS or Corrections Basic Recruit Academy.

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CJK 0051 - Defensive Tactics

81 Clock Hours

(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare prospective officers to control subjects and defend themselves using appropriate defensive tactics in accordance with Florida State Statute, the United States Constitution, and case law. This course includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJK 0064 - Fundamentals of Patrol

36 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to understand Community Oriented Policing and how it is implemented as a problem solving model, and identify the SECURE problem solving model and its application in real life situations; understand officer safety issues, identify and avoid fatal errors, identify and manage stress, maintain mental and physical fitness; respond to a call, approach a suspect, make an arrest, transport a prisoner and process the prisoner at a detention facility; and understand how to direct traffic, how to enforce traffic citations, identify how to respond to alarms and conduct a building search, and search inventory and impound vehicles. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

CJK 0065 - Calls for Service

36 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to respond to calls for service, disturbances, people in distress and court orders. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0077 - Criminal Investigations

51 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond appropriately to a person or property crime victim, witness, and suspect; conduct a preliminary investigation on crimes against persons and crimes against property offenses; conduct a follow-up investigation to establish a suspect's identity and/or ascertain facts of the case; and, give testimony in different types of court proceedings. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0078 - Crime Scene to Courtroom

36 Clock Hours (Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to prepare the student to respond to a crime scene, protect and survey a crime scene, process a crime scene, dust for latent prints, and document a crime scene by sketching. This course includes classroom instruction and scenario-based training exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0084 - DUI Traffic Stops

33 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective DUI stops, including identifying a driver under the influence of alcohol and drugs, conducting field sobriety tests, and completing a DUI investigation. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0087 - Traffic Stops

30 Clock Hours

(Offered Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to the basic rules for conducting safe and effective traffic stops, including ethical consideration, safety considerations, citation and warning procedures, and dealing with abandoned vehicles. It includes classroom instruction and practical proficiency exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0088 - Traffic Crash Investigations

33 Clock Hours

(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It introduces the student to traffic crash investigations, laws pertaining to traffic crashes and procedures for responding to a traffic crash. It includes classroom instruction and practical exercises. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0092 - Critical Incidents

45 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS Basic Recruit Academy. It is designed to enable students to identify the crowd control procedures to safely and effectively disperse or control a large group of people; understand local emergency response plans; respond to a bomb threat, assesses the scene, search and evacuate a building or suspected bomb sight, identify Weapons of Mass Destruction and properly respond to a WMD incident. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096A - Criminal Justice Physical Fitness I

31 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0096B - Criminal Justice Physical Fitness II

32 Clock Hours
(Fall, Spring, Summer)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy.

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CJK 0300 - Introduction to Corrections

33 Clock Hours
(Offered as needed)

This course introduces students to the legal and ethical responsibilities of a correctional officer. Legal terms and definitions are explained. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0305 - CJSTC Communications

42 Clock Hours (Offered as needed)

This course covers the entire report writing process. Topics include interview and interrogation, interpersonal communication, and practical exercises. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0310 - Officer Safety

12 Clock Hours (Offered as needed)

Correctional officer safety procedures are learned. Students will learn to identify potential hazards and learn how to safely respond. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0315 - Facility and Equipment

12 Clock Hours (Offered as needed)

Students learn the appropriate procedures for inspecting a correctional facility and equipment. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0320 - Intake and Release

18 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for admitting and releasing inmates in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0325 - Supervising in a Correctional Facility

42 Clock Hours
(Offered as needed)

Students learn the appropriate procedures for supervising inmates in a correctional facility. They also learn to detect crimes and rule violations in various correctional facility settings. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0330 - Supervising Special Populations

21 Clock Hours
(Offered as needed)

Students learn how to identify and supervise special population groups, such as threat groups, juveniles, elderly, and mentally ill inmates. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0335 - Responding to Incidents and Emergencies

18 Clock Hours
(Offered as needed)

Students learn how to identify and respond to situations involving escapes, riots, bomb threats, fires, and medical emergencies in a correctional facility. This course is open only to students admitted to the Correctional Officer Basic Recruit Academy.

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CJK 0340 - Corrections CCP Physical Fitness

30 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to encourage students to improve their overall physical fitness, improve their score on the final fitness evaluation, and adopt a foundation for lifelong fitness. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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CJK 0422 - Dart-Firing Stun Gun

9 Clock Hours
(Offered as needed)

This course is a component of the Law Enforcement Florida CMS and Correctional Officer Basic Recruit Academies. It is designed to prepare students in the proper use of the Dart Firing Stun in accordance with the Florida State Statutes, the United States Constitution, and case law. It includes classroom instruction and practical physical exercises and demonstrations. This course is open only to students admitted to the Law Enforcement Florida CMS Basic Recruit Academy or Correctional Officer Basic Recruit Academy.

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DEA 0020 - Pre-Clinical Procedures Theory

60 Clock Hours
(Offered as needed)

This course is designed to provide an introduction to the dental assisting profession to include orientation to four handed dentistry and general dental office procedures including, but not limited to basic principles of disease prevention, patient data collection and assessment, and instrumentation. Emphasis is on adhering to safety guidelines as specified by OSHA.

Corequisite(s): DEA 0020L.

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DEA 0020L - Pre-Clinical Practice Lab

90 Clock Hours
(Offered as needed)

This is a comprehensive chair side competency based course. The course provides the skills practice necessary for dental assisting students entering four handed dentistry practice including but not limited to infection control, taking and recording vital signs, assisting with operative procedures, principles of preventive dentistry, instrument identification, and use and maintenance of equipment. Emphasis is on aseptic technique and clinical competency with procedures performed in a contemporary dental practice.

Corequisite(s): DEA 0020, DES 0103L.

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DEA 0130 - Oral Pathology

30 Clock Hours
(Offered as needed)

This course is a general study of the scientific and clinical concepts that include additional knowledge base necessary to the practice of dental assisting. Students will study the normal and abnormal conditions of the oral cavity such as dental caries prevention, the dental caries process and recognition of various common pathological conditions. Oral pathology, histology and embryology are included. Emphasis is on the interrelationship of the information presented with the clinical practice of dental assisting.

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DEA 0803L - Clinical Practice I

150 Clock Hours
(Offered as needed)

This competency based clinical course provides a real world setting in which to integrate the laboratory and clinical skills learned in the classroom. The student receives closely supervised hands on training in chair side dental assisting through rotations at community dental offices. Progress is evaluated using predetermined competency guidelines. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 90 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Corequisite(s): DEA 0020, DEA 0020L.

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DEA 0852L - Clinical Practice II

180 Clock Hours (Offered as needed)

This course is a continuation of Clinical Practice I. It provides a real world setting for students to receive additional training in the clinical skills learned in class. Students are assigned to various offices in the community including but not limited to general dentists, oral surgeons, orthodontists, periodontists, and endodontists. Performance evaluations are utilized to measure competency and provide feedback from the local dental offices to the instructor regarding the students' competency level. Skills are strengthened in Seminar Lab. Students must provide their own transportation, current CPR training, and up-to-date immunization records. Specific procedure requirements and 150 clinical rotation hours (minimum) must be fulfilled to successfully complete this course.

Prerequisite(s): DEA 0803L, DES 0400

Corequisite(s): DES 0830, DES 0830L.

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DEA 0936 - Dental Assisting Seminar

60 Clock Hours (Offered as needed)

This course is designed to provide a review of materials commonly covered on the Dental Assisting National Board (DANB) Exam. Topics include but are not limited to infection control, general chair side procedures, and radiographic technique. The seminar will provide a mock board examination, and opportunities for review, problem solving, and strengthening skills. The course also serves as an opportunity for feedback from students' Clinical Practice.

Prerequisite(s): DEA 0852L, DEA 0803L, DES 0205, DES 0205L

Corequisite(s): DEA 0803L, DES 0206L.

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DES 0103 - Dental Materials

60 Clock Hours
(Offered as needed)

This course is a comprehensive study of the theory of manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. The competency based lab that accompanies this course includes exercises to illustrate application and use of selected materials. Students will study various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, as well as acrylic plastics. Students will become familiar with various pieces of dental laboratory equipment and their uses.

Corequisite(s): DES 0103L, DEA 0020L.

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DES 0103L - Dental Materials Lab

90 Clock Hours
(Offered as needed)

This course is a comprehensive study of the manipulation, physical and chemical properties of materials used in the diagnosis, prevention and treatment of oral disease. Emphasis is on practical application as it relates to the role of the dental assistant in the contemporary dental practice. It is a competency based lab that accompanies the theory course and includes exercises to illustrate application and uses of selected materials. Students practice the use of various materials including but not limited to impression materials, waxes, filled and unfilled resins, dental amalgams, gypsum, and acrylic plastics.

Corequisite(s): DES 0103, DEA 0020L.

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DES 0205 - Dental Radiology I

60 Clock Hours
(Offered as needed)

This course is designed to introduce the theory, application and principles of radiographic exposure and processing techniques used in dentistry. Students will receive instruction including but not limited to historical data, radiation safety, exposure, processing, mounting and error prevention. Image interpretation of radiographic anatomical structures will be included.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205L.

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DES 0205L - Dental Radiology Laboratory I

60 Clock Hours
(Offered as needed)

This laboratory course assists students in radiographic performance techniques using DXTR manikins to achieve competency prior to exposure of various patients with varied dentitions. Students practice exposing, mounting, radiographic interpretation, safe darkroom procedures, identification of landmarks and distinguishing radiographic pathology from normal landmarks. Clinical radiographic skills necessary to produce diagnostic quality radiographs including bitewings, periapical radiographs, and panoramic x-rays will be covered. Emphasis is on patient and operator safety guidelines and producing diagnostic quality radiographs.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L

Corequisite(s): DES 0205.

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DES 0206L - Dental Radiology Laboratory II

30 Clock Hours
(Summer)

This laboratory course assists students in additional radiographic performance techniques to include surveys on patients with varied dentitions. Students practice advanced radiographic exposure techniques, interpretation, additional darkroom procedures, identification of landmarks and distinguishing various radiographic pathology. Clinical radiographic skills necessary to produce diagnostic quality x-rays including bitewing, radiographs, periapical radiographs, and panoramic surveys on actual patients are implemented. Emphasis is placed on patient and operator safety guideline and producing diagnostic quality radiographs. This course will involve live patients, scheduling appointments and presenting prescriptions for x-rays from local dentist.

Prerequisite(s): DES 0400, DEA 0020, DEA 0020L, DES 0205L

Corequisite(s): DES0206

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DES 0324 - Interpersonal Communications Skills

30 Clock Hours
(Offered as needed)

This course is designed to implement interpersonal and effective communication skills in the practice of dentistry. It includes team building strategies, oral and written communications skills with the correct use of terminology commonly used in dentistry. Professionalism in verbal and nonverbal communications is emphasized. Students will be introduced to the legal and ethical scope of responsibilities for dental assistants and interpersonal relations in the dental office. Providing oral health instructions and post operative instructions for patients will be introduced. Scenario-based role playing is used to augment student learning of course content.

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DES 0400 - Dental Anatomy

90 Clock Hours
(Offered as needed)

This course provides a detailed study of the orofacial and related structures of the head and neck including, but not limited to the eruption, identification and function of the human dentition, study of bony, circulatory, muscular and nervous systems of the head, neck and surrounding structures associated with the oral cavity. A brief introduction to oral histology and embryology will be included.

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DES 0501 - Dental Practice Management

60 Clock Hours
(Offered as needed)

This course includes theory and content relating to practical administrative duties performed in the dental office. Lectures and role playing activities are related to the responsibilities of the dental assistant. Topics include but are not limited to appointment scheduling, billing, collections, record keeping, clerical and dental supply inventory. Students are introduced to the use of dental practice software with hands on computer experience. Legal responsibilities, interpersonal relations, and interview skills are included.

Prerequisite(s): DES 0205, DES 0205L

Corequisite(s): DEA 0936.

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DES 0602 - Pharmacology and Dental Office Emergencies

30 Clock Hours
(Offered as needed)

This course is designed to familiarize the dental assisting student with the basic concepts and considerations regarding pharmacology and pharmaceuticals used in dentistry. Topics presented include nitrous oxide monitoring, emergency procedures and protocol. Lectures will include recognition of emergency conditions in the dental office, not limited to syncope, anaphylaxis, and cardiovascular incidents. Emphasis is placed on the role of the dental assistant in the prevention and management of dental office emergencies.

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DES 0830 - Expanded Function Theory**30 Clock Hours**
(Offered as needed)

This course introduces the dental assisting student to the dental specialty practices and more advanced clinical skills. It also provides the theory of dental specialty practice administration as it relates to the role of the dental assistant including ethical and legal ramifications. Lectures relate topics including but not limited to dental specialty procedures, instruments used in the specialty practices and duties delegated to dental assistants according to the rules and regulations of the Florida Dental Practice Act. Role playing and problem solving activities using case studies relate to duties delegated to dental assistants.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830L.

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DES 0830L - Expanded Functions Lab**60 Clock Hours**
(Offered as needed)

This laboratory course accompanies the clinical practice lecture course DES 0830 and provides opportunity for students to practice application of the duties delegated to dental assistants according to the Florida Dental Practice Act. Students become more proficient in more advanced skills. Competencies containing information and behavioral objectives allow students to master each skill before advancing to the next.

Prerequisite(s): DEA 0020, DEA 0020L, DES 0400

Corequisite(s): DES 0830.

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DES 0844 - Infection Control for Dental Assistants

30 Clock Hours
(Offered as needed)

This course is a general study in biomedical sciences of preventive dentistry to familiarize the dental assisting student with basic principles of microbiology, basic body structures, and their functions and effects as manifested in the oral cavity. The course also covers the effects of nutrition and the role of microorganisms in dental health and blood borne pathogens.

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EMS 0119 - Emergency Medical Technician for Firefighters

140 Clock Hours
(Fall, Spring, Summer)

Emergency Medical Technician is designed to prepare the student with the necessary fundamental knowledge to be successful in meeting Emergency Medical Technician certification and licensing requirements. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director

Corequisite(s): FFP 0010, FFP 0020, EMS 0119L

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EMS 0119L - Emergency Medical Technician Lab for Firefighters

160 Clock Hours
(Fall, Spring, Summer)

This course provides an integrated experience that is designed to allow the student to apply practical experience to material learned in Emergency Medical Technician. Students will learn how to assess, treat and transport the sick and injured at the level of the Emergency Medical Technician-Basic in the laboratory environment, area hospitals and advanced life support EMS ambulances. There is emphasis on assessment based learning and complies with National DOT EMT-Basic curriculum.

Prerequisite(s): Permission of the EMS Director.

Corequisite(s): FFP 0010, FFP 0020, EMS 0119

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FFP 0010 - Firefighting I

206 Clock Hours
(Offered as needed)

This course is the first part of the Basic Fire Recruit Academy and prepares students for a career as a volunteer firefighter. Classroom instruction includes a variety of fire related topics which are reinforced and enhanced through practical skills activities. Upon completion, the student is eligible to test for certification as a volunteer firefighter through the Florida State Fire College and may elect to continue training in Firefighter II to pursue state certification as a career firefighter. Permission of the Public Safety Division is required.

Corequisite(s): FFP 0077 unless previous certification has been obtained for first responder, EMT, or paramedic.

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FFP 0020 - Firefighting II

192 Clock Hours
(Offered as needed)

This course is the second part of the Basic Fire Recruit Academy and prepares students for a career as a firefighter. The delivery of instruction includes a variety of training in practical skills necessary for the mastery of the basic competencies required in the program. Upon successful completion of this course, the student is eligible to take the Bureau of Fire Standards and Training written and practical examination. Permission of the Public Safety Division is required.

Prerequisite(s): FFP 0010 or FFP 0077

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FFP 0077 - First Responder for Public Safety Personnel

45 Clock Hours
(Fall, Spring, Summer)

This course trains public safety members who are the first to arrive at an emergency in providing efficient and

accurate pre-hospital care. Students assess patients for wounds to determine if trauma, shock, burns or closed airways are a problem and how to address those issues by dressing wounds, stabilizing the person or administering oxygen. They immobilize patients and address common emergency medical issues with basic treatments. This course includes hands-on, practical experience and is necessary to be eligible for first responder certification.

This course is a co-requisite course for students entering the Firefighting Certificate program who do not have certification for first responder, EMT, or paramedic.

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PMT 0106C - Welder Helper

150 Clock Hours
(Fall, Spring)

This course provides instruction in shop safety, the use of safety procedures and protective equipment needed in a welding shop. Course includes basic shop math, shop safety, welding equipment setup/teardown procedures.

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PMT 0111C - Metal Preparation

150 Clock Hours
(Fall, Summer)

This course provides instruction in different metal preparation processes including: thermal preparation (oxygen/fuel cutting, carbon arc cutting, plasma torch cutting). The student will also learn mechanical preparation (band saw, grinder, power brush, and other metal prep equipment).

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PMT 0121C - Introductory Shielded Metal Arc Welding (SMAW)

75 Clock Hours
(Fall, Spring)

This course provides instruction and demonstration using Shielded Metal Arc Welding (SMAW). Topics include visually inspect of welds, and basic SMAW technical terminology. Basic structural welding techniques will be demonstrated in accordance with American Welding Society (AWS) D1.1 Structural Welding Code. Tack welding and metal joint fit of carbon steel is covered in this course.

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PMT 0122C - Basic Shielded Metal Arc Welding (SMAW)

75 Clock Hours

(Fall, Spring)

This course introduces structural fillet welds in different joint positions in accordance with AWS D1.1 Structural Welding Code. Fillet welds will be performed on carbon steel plate of various thicknesses.

Prerequisite(s): PMT 0121C

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PMT 0126C - Intermediate Shielded Metal Arc Welding (SMAW)

75 Clock Hours

(Fall, Spring)

This course provides the student with instruction on joint design, joint preparation, and fit-up, and performance of groove welds with backing. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds with backing and make acceptable groove welds with backing using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0122C

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PMT 0127C - Advanced Shielded Metal Arc Welding (SMAW)

75 Clock Hours

(Spring, Summer)

This course provides the student with advanced instruction on joint design, joint preparation, and fit-up, and performance of open groove welds. Emphasis is placed on safe operation of welding equipment. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of open groove welds and make acceptable open groove welds in all positions using Shielded Metal Arc Welding (SMAW) in accordance with AWS D1.1 welding code.

Prerequisite(s): PMT 0126C

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PMT 0134C - Gas Metal Arc Welding (GMAW)

50 Clock Hours
(Spring, Summer)

This course provides instruction and demonstration using the various transfer methods and techniques of Gas Metal Arc Welding (GMAW). Topics included are safety, equipment set-up, joint design and preparation, and gases.

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PMT 0145C - Flux-Core Arc Welding (FCAW)

240 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Flux-Core Arc Welding (FCAW) and basic understanding of pipe welding. Welding symbols and blueprint reading are covered in this course.

*Vocational courses are not applicable to the A.A. or A.S. degree or to the College Credit Certificate without an approved articulation agreement. Vocational courses, offered in clock hours, are courses that can be used for the awarding of Career and Technical or Vocational Certificates. In addition, vocational courses may be articulated to college credit and applied to college credit certificates or A.S. degree programs. Students should work closely with an advisor to plan their studies in a way to take advantage of this opportunity.

PMT 0155C - Gas Tungsten Arc Welding (GTAW)

160 Clock Hours
(Offered as Needed)

This course provides instruction and demonstration using the various transfer methods and techniques to gas tungsten arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases. Students study basic Gas Tungsten Arc Welding (GTAW), and basic understanding of pipe welding.

PMT 0165C - Shielded Metal Arc Weld (SMAW) Pipe Welding

200 Clock Hours
(Offered as needed)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the Shielded

Metal Arc Weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to demonstrate pipe positions, proper electrodes selection, proper joint geometry, joint preparation, fit-up, and proper SMAW pipe welding techniques in accordance with applicable codes.

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PMT 0171C - SMAW-GTAW Pipe Welding

400 Clock Hours
(Offered as needed)

This course is designed to provide the students with skills in welding carbon steel pipe using Shielded Metal Arc Weld process and Gas Tungsten Arc Weld (GTAW) processes using proper filler metals in the 2G, 5G, and 6G positions. Upon completion, students should be able to perform shielded metal arc welding process and gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in the 2G, 5G, and 6G position in accordance with the applicable code.

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PMT 0173C - Specialty Pipe Welding

150 Clock Hours
(Offered as needed)

This courses covers advanced pipe welding and is designed to build advanced GTAW skills. This course covers advanced Gas Tungsten Arc Welding (GTAW) on alloy pipe and heavy wall carbon pipe.

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TRA 0080 - Tractor Trailer Truck Driver

320 Clock Hours
(Spring)

This course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements.

TRA 0086 - Tractor Operator

150 Clock Hours
(Fall)

This course is designed to build on the skills and knowledge students learned in the Heavy Equipment Maintenance Technician course for entry into the Heavy Equipment Operations industry. Content emphasizes beginning skills and concepts as a recommended requisite. Students study pneumatic and crawler-type tractor operations.

TRA 0650 - Natural Gas Distribution I

75 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance.

TRA 0650B - Natural Gas Distribution IB

75 Clock Hours
(Fall)

This course is prepares students for work as general technicians in the natural gas distribution industry. Students learn to comply with safety procedures, operate basic tools and equipment and provide customer assistance. This course continues the knowledge acquired in the TRA0650.

TRA 0651 - Natural Gas Distribution II

150 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

Prerequisite(s): TRA 0650

TRA 0652 - Natural Gas Distribution III

150 Clock Hours
(Fall)

This course prepares students for work as general technicians in the natural gas distribution industry. Students complete customer compliance orders and assist in inspections. Content includes construction mathematics and reading.

Accommodation Resource Center

Accommodation Resource Center

The Accommodation Resource Center (ARC) of Northwest Florida State College is committed to providing equal access and opportunities for our students with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the ADA Amendments Act of 2008. The ARC helps navigate accessibility for students with disabilities by removing educational barriers and partnering with the campus community for inclusion and support.

Students in need of accommodations must be registered for courses and are encouraged to submit a request online by visiting www.nwfsc.edu/accommodations. Students who register may be eligible for accommodations such as, but not limited to note-taker, scribe, interpreter, extended time for testing, course substitution, and use of an audio recording device. Registered students with the ARC must renew their accommodations at the beginning of each semester by filling out and submitting an ARC renewal form located in Raidernet. Confidentiality is honored and maintained. Students may contact the arc at arc@nwfsc.edu or by calling 850-729-6079.

Telephone Device for the Deaf (TDD) numbers are available through the Florida Telecommunication Relay Service:

Voice:	711 or 1-800-955-8770
TDD:	711 or 1-800-955-8771

Northwest Florida State College does not discriminate against qualified individuals with disabilities in any of our programs, services, or activities based on Title II of the Americans with Disabilities Act.

Complaints and Grievances

Student Complaint and Grievance Procedures

Definitions

An informal complaint or formal grievance is a dispute against any employee or department of the College who has:

1. Violated a written College policy or procedure
2. Not properly followed the College's published policies, regulations, rules, or procedures.

Informal Resolution of Complaints

A student who has a complaint against an employee or department of the College should attempt to resolve the matter informally. Outlined below are the procedures for informally resolving a complaint. The Director of Student Development and Campus Engagement may act as the Student Ombudsman and assist in the resolution of informal complaints. *Deans and Vice Presidents cannot be involved in resolution of informal complaints.*

- *Academic (informal)*
 1. Academic complaints are any dispute (meeting the definition above) with an instructor or department related to in-class activity.
 2. As part of the informal process, students must first attempt to resolve the dispute directly with the instructor.
- *Non-Academic (informal)*
 1. Non-academic complaints are any dispute (meeting the definition above) with a college employee or department related to non-class activity.
 2. As part of the informal process, students must first attempt to resolve the issue directly with the employee.

Formal Grievances

Limit of Scope

A formal grievance cannot be used:

1. As a resolution of matters student-to-student.
2. To challenge the legitimacy of existing policies, regulations, rules, or procedures.
3. Against any non-employee of the College.

Formal Resolution of Grievances (Step 1)

A student who has a formal grievance against an employee or department of the College who has attempted to satisfactorily resolve the matter informally (as outlined above) may file a formal grievance. Outlined below are the procedures for resolving a formal grievance.

1. The student will submit their Step I Grievance through an electronic form available on the website.
2. The student must explain, within 30 days of the last contact with the individual in the informal complaint, the circumstances pertaining to the situation.
3. The student must identify the policies that have been violated or not properly followed.
4. The student must identify what action would be a satisfactory resolution to the situation.

Formal grievance Investigation Procedure (Step 1)

Academic	Non-Academic
The instructor's Program Director or Program Chair (hereafter "the administrator") will investigate.	The employee's Director or Executive Director (hereafter "the administrator") will investigate.

- The administrator may, for safety reasons, issue temporary sanctions or accommodations, as appropriate, during the investigation.
- The administrator will meet with the appropriate parties to collect the facts of incident.
- Once all known facts of the incident have been collected, the administrator will consider the details and render a decision. All decisions will be based on a "beyond a reasonable doubt" standard.
- The administrator will notify the individual(s) of the decision. If the individual is found "responsible" for the incident sanctions will be applied.
- A response with a decision to the student through email within 10 business days of submission.

Formal Resolution of Grievances (Step 2)

- A Step 2 Grievance must be filed within 10 calendar days of the issuance of the Step 1 finding.
- The student will submit their Step 2 Grievance through an electronic form available on the website.
- During the appeal process the sanctions issued in Step 1 will stand.
- A Step 2 Grievance may be filed if the individual filing the Grievance believes there was an error or omission of fact or law considered by the administrator in Step 1.
- The individual filing the Grievance must identify the following points in their submission:
 - Why the outcome issued by the administrator is factually flawed or contrary to federal law, state law or college policy or practice.
 - Desired outcome of the Grievance.

Formal grievance Investigation Procedure (Step 2)

Academic	Non-Academic
The Program Director or Program Chair's Dean (hereafter "the administrator") will investigate.	A Director or Executive Director not supervising the involved parties (hereafter "the administrator") will investigate.
• The administrator will review all materials collected in the Step 1 Grievance. • The administrator will make a determination as to whether the outcome issued by the administrator in Step 1 was factually flawed or contrary to federal law, state law or college policy or practice. • The administrator may convene a panel to assist with the investigation of the Grievance (as needed). • The administrator may call on the individual filing the Grievance, witnesses, or any other appropriate party to resolve the Grievance. • A response with a decision to the student through email within 10 business days of submission. ○ If additional information is requested by the administrator and not received within 10 business days, the finding of the Step 1 Grievance will be upheld. ○ If the administrator determines the Step 1 Grievance findings were incorrect, all sanctions will be reversed and the student's written, desired outcome will be met.	

Formal Resolution of Grievances (Step 3)

- A Step 3 Grievance must be filed within 10 calendar days of the issuance of the Step 2 finding.
- The student will submit their Step 2 Grievance through an electronic form available on the website.
- During the appeal process the sanctions issued in Step 1 will stand.
- A Step 3 Grievance may be filed if the individual filing the Grievance believes there was an error or omission of fact or law considered by the administrator in Step 1.
- The individual filing the Grievance must identify the following points in their submission:
 - Why the outcome issued by the administrator is factually flawed or contrary to federal law, state law or college policy or practice.

- Desired outcome of the Grievance.

Formal grievance Investigation Procedure (Step 3)

Academic	Non-Academic
The Vice President, Academic Affairs will be the sole arbiter.	The Vice President, Student Success will be the sole arbiter.
• The Vice President will review all materials collected in the Step 1 and Step 2 Grievances. • The Vice President will make a determination as to whether the outcome issued by the administrator in Step 2 was factually flawed or contrary to federal law, state law or college policy or practice. • The Vice President may convene a panel to assist with the investigation of the Grievance (as needed). • The Vice President may call on the individual filing the Grievance, witnesses, or any other appropriate party to resolve the Grievance. • A response with a decision to the student through email within 10 business days of submission. ○ If additional information is requested by the administrator and not received within 10 business days, the finding of the Step 2 Grievance will be upheld. ○ If the Vice President determines the Step 2 Grievance findings were incorrect, all sanctions will be reversed and the student's written, desired outcome will be met. • The Step 3 Grievance is the final step in the college's Grievance process.	