MESSAGE FROM THE PRESIDENT

Welcome to the College of Staten Island, a senior college of The City University of New York. CSI is an institution with an unwavering commitment to providing a quality education that will give you the tools to cope, prevail, and succeed; to change and enjoy. At CSI, your graduate education encompasses much more than a classroom and textbook experience. The serene, 204-acre, park-like setting nourishes the soul; our magnificent Sports and Recreation Center will strengthen your body as your mind and spirit are enhanced with culturally rich programs and events offered through our Center for the Arts.

The College of Staten Island offers 23 graduate programs in the arts, sciences, technology, and education, as well as a chance to conduct research with outstanding faculty, many of whom are intellectually renowned in their fields. The CUNY Institute for Macromolecular Assemblies gives students the opportunity to research the underlying causes of disease and to study the fundamentals of healing. The College’s Astrophysical Observatory, the most sophisticated in New York City, is internationally recognized as an asteroid tracking station, and CSI students and faculty participate in collaborative research and environmental monitoring projects. At the College, you will have the opportunity to study on a state-of-the-art wireless campus offering access to computer labs, excellent scientific facilities, and modern communications. This combination of diverse degree programs, talented faculty, and superior facilities affords to CSI students an array of perspectives on our world. The possibilities for exploration are limitless.

The College of Staten Island, through its faculty, staff, students, alumni, and friends, is bound together by a common commitment to help prepare all of its students to meet the opportunities and challenges that lie ahead in today’s advanced technological and diverse society. Become confidently prepared to meet the future, fulfill your dreams and aspirations, explore your commitment to help prepare all of its students to meet the opportunities and challenges that lie ahead in today’s advanced technological and diverse society. Become confidently prepared to meet the future, fulfill your dreams and aspirations, explore your education is—I wish you a very successful graduate career at CSI. One that is filled with learning, diversity, excitement, and promise.

Sincerely,

Marlene Springer
COLLEGE CALENDAR

FALL 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 30</td>
<td>Wednesday</td>
<td>First day of classes</td>
</tr>
<tr>
<td>Sep 4</td>
<td>Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>Sep 6</td>
<td>Wednesday</td>
<td>Classes follow Monday schedule</td>
</tr>
<tr>
<td>Sep 22-24</td>
<td>Friday-Sunday</td>
<td>No Classes</td>
</tr>
<tr>
<td>Sep 29</td>
<td>Friday</td>
<td>Last day to file for January 2007 graduation</td>
</tr>
<tr>
<td>Oct 2</td>
<td>Monday</td>
<td>No classes</td>
</tr>
<tr>
<td>Oct 5</td>
<td>Tuesday</td>
<td>Classes follow Monday schedule</td>
</tr>
<tr>
<td>Oct 9</td>
<td>Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>Oct 24</td>
<td>Tuesday</td>
<td>Mid-term grades due</td>
</tr>
<tr>
<td>Nov 21-24</td>
<td>Thursday-Friday</td>
<td>College closed</td>
</tr>
<tr>
<td>Dec 15</td>
<td>Wednesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>Dec 16-22</td>
<td>Thursday-Friday</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>Dec 24-25</td>
<td>Sunday-Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>Dec 31</td>
<td>Sunday</td>
<td>College closed</td>
</tr>
<tr>
<td>Jan 1</td>
<td>Monday</td>
<td>College closed</td>
</tr>
</tbody>
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SPRING 2007

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Events</th>
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</thead>
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<tr>
<td>Jan 20</td>
<td>Monday</td>
<td>First day of classes</td>
</tr>
<tr>
<td>Feb 12</td>
<td>Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Thursday</td>
<td>Last day to file for June/August 2007 graduation</td>
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<tr>
<td>Mar 21</td>
<td>Wednesday</td>
<td>Mid-term grades due</td>
</tr>
<tr>
<td>Apr 2-10</td>
<td>Monday-Tuesday</td>
<td>No classes, Spring Recess</td>
</tr>
<tr>
<td>May 17</td>
<td>Thursday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 19-25</td>
<td>Friday-Friday</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>May 28</td>
<td>Monday</td>
<td>College closed</td>
</tr>
<tr>
<td>May 31</td>
<td>Thursday</td>
<td>Commencement</td>
</tr>
</tbody>
</table>

ABOUT THE COLLEGE

The College of Staten Island is a senior college of The City University of New York. The Master’s degree is awarded in selected fields of study: Biology (MS); Business Management (MS); Cinema and Media Studies (MA); Computer Science (MS); Education: Childhood (Elementary) Education (MSED), Multicultural Secondary Education (MSED), Special Education (MSED), English (MA), Environmental Science (MA); History (MA); Liberal Studies (MA); Neuroscience; Mental Retardation, and Developmental Disabilities (MS); Nursing: Adult Health Nursing (MS) and Gerontological Nursing (MS); and Physical Therapy (BS/MS). The Post-Master’s Advanced Certificates are awarded in Leadership in Education, Adult Health Nursing, and Gerontology Nursing.

The Doctoral program in Polymer Chemistry is offered jointly with the City University Graduate School and University Center and Brooklyn College. The College also participates in the City University Doctoral programs in Biology (Neuroscience), Computer Science, Psychology (Learning Processes), and Physics.

The academic year follows a two-semester pattern, with a separate summer session. Classes are scheduled days, evenings, and weekends.

The College of Staten Island of The City University of New York was founded in 1976 through the union of two existing colleges — Staten Island Community College and Richmond College. Staten Island Community College, the first college community in the University, opened in 1955. Richmond College, an upper-division college offering undergraduate and graduate degrees to students who had successfully completed the first two years of college study elsewhere, was founded in 1965. The merger of these two colleges resulted in the only public four-year institution of higher learning on Staten Island.

The Campus

Completed in 1994, the 284-acre campus of CSI/CUNY is the largest site for a college in New York City. Set in a park-like landscape, the campus is centrally located on the Island. Mature trees and woodlands, flowering trees and ornamental plantings, fields and outdoor athletic facilities, the Great Lawn, sculpture, and seating areas create a green oasis in an urban setting.

Fourteen renovated neo-Georgian buildings serve as classrooms, laboratories, and offices. The academic buildings house approximately 500 classrooms, laboratories and instructional spaces, study lounges, department and program offices, and faculty offices. The Library and Campus Center serve as focal points for the Academic Quadrangles with the Arts located midway between the Quadrangles at the fountain plaza. The Sports and Recreation Center and the athletic fields are located near the main entrance to the campus.

Fifteen works of art, a permanent collection of works either commissioned or purchased through the Art Acquisitions Program of the Dormitory Authority of the State of New York, are installed throughout the campus. Art galleries and the free-standing sculptures and reliefs are:

- Vincent Amatu, Body of Electric/Converse, Miriam Bloom, Shosholine, Fritz Bultman, Garden at Nightfall (extended loan); Chrysa, Untitled, Lucille Freedland, Big Stride (gift of the artist); Rod Grooms, Marathon; Sarah Hayland, Staten Island Arch; Jon Isherwood, Dissolve; Zorn Higahada, In Search of the Extended Universe; Valerie Jaudon, Untitled, Niki Ketchman, Red Inside; Win Koonin, Ellipse; Mark Menumin, Borromini, Don Purdue, Moon Marker; and Hans van de Bovenkamp, Red Inside.

The 16-foot dome astrophysical observatory was completed in 1996. In addition to serving students in astronomy courses, the facility is used for faculty and student research projects, environment monitoring projects, and community programs.

Biological Sciences/Chemical Sciences Building: An ultra-modern facility, the building contains classrooms, laboratories, faculty offices, research facilities for faculty and students, the Center for Environmental Science, and the Center for Developmental Neuroscience and Developmental Disabilities.

Campus Center: The Campus Center incorporates facilities for a complete program of student activities and offices for student organizations, food services, health services, a study lounge, bookstore, and the studios of WSIA-FM, the student-operated radio station.

Center for the Arts: The Center for the Arts houses two academic wings for programs in the arts as well as superb public spaces: the Clara and Arleen B. Williamson Theatre, a 900-seat concert hall, a recital hall, an experimental theater, lecture halls, an art gallery, and a small conference center.

Library: Designed with inviting reading rooms, open shelves, and study carrels, its research and study facilities are enhanced by computer data-based operations available to all students. Library Media Services makes accessible pedagogical multimedia materials in distant classrooms and laboratories by means of the campus fiber-optic network.

Sports and Recreation Center: This 77,000 square-foot, multi-purpose facility and surrounding athletic fields serve the intercollegiate and intramural sports and recreation programs for students.

Research Institutes and Centers

The College of Staten Island hosts one CUNY-wide research institute: Institute for Macromolecular Assemblies

Dr. Ruth Stark, Director
Office: Biological Sciences/Chemical Sciences Building (6S), Room 228
The Institute for Macromolecular Assemblies, established in 2001, builds on the research strengths of campus-based faculty in Chemistry, Biology, and allied fields; on the collaborative research alliances the College has made with other institutions; and on our unique laboratory capabilities. The Institute coordinates existing and new research investigations for both natural and engineered macromolecular assemblies of biological and medical importance, and integrates and expands graduate and undergraduate educational programs in these areas across CUNY. The Institute fosters mutually
advantages partnerships with private industry in its biotechnology research and development efforts.

Academic centers at CSI devoted to research are the Center for Developmental Neuroscience and Developmental Disabilities and the Center for Environmental Science.

Center for Developmental Neuroscience and Developmental Disabilities

Dr. Robert Freedland, Managing Director
Office: Biological Sciences/Chemical Sciences Building (6S), Room 209

The Center for Developmental Neuroscience and Developmental Disabilities (CND) is supported jointly with the New York State Institute for Basic Research (IBR). The Center conducts, promotes, and supports research, education, and training in the developmental neurosciences with special emphasis on research and educational programs in the specific field of developmental disabilities. The Center provides for collaborative efforts between the College and IBR in offering the Master of Science degree in Neuroscience, Developmental Disabilities, and Mental Retardation, as well as with the University’s doctoral programs in Biology, subprogram in Neuroscience and Physiology, and in Psychology, subprogram in Learning Processes. On the CUNY campus, the Center has established research laboratories for investigations in cellular and molecular neuroscience and provides advanced research training for graduate and undergraduate students.

Center for Environmental Science

Dr. Alfred M. Levine, Director
Office: Biological Sciences/Chemical Sciences Building (6S), Room 110

The Center for Environmental Science, established in 1967, provides support for research and policy recommendations concerning environmental problems. One of the major purposes of the Center is to define and solve environmental problems on Staten Island and its environs through research that includes studies of respiratory diseases, toxic and carcinogenic chemicals in the air, and the population at risk. The Center has established research laboratories for investigations in cellular and molecular neuroscience and provides advanced research training for graduate and undergraduate students.

Center for the Study of Staten Island

Staten Island Project (SSIP)

Dr. Minella Allen, Director

The Center for the Study of Staten Island is a part of the College’s efforts to trace its beginning to 1661 and a public referendum that provided tuition-free higher education for residents of New York City. The municipal college system grew rapidly and in various colleges were consolidated as The City University of New York by an act of the New York State Legislature in 1961. CSI is comprised of 11 senior colleges, six community colleges, a graduate school, a law school, and a medical school. It is the largest municipal college system and the third largest university in the nation.

THE BOARD OF TRUSTEES

The City University is governed by the Board of Trustees composed of 17 members, ten of whom are appointed by the Governor of New York, and five by the Mayor of New York City. The chairperson of the University Faculty Senate serves ex officio, without vote, the chairperson of the University Student Senate serves ex officio, with vote.

SPONSORSHIP AND ACCREDITATION

CSI is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, 1-215-662-5666. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation. The MA in Liberal Studies is accredited by the Association of Graduate Liberal Studies Programs. The MA in Adult Health Nursing is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006; 1-212-963-3555. The Biostatistics program in Physical Therapy is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Copies of these accreditation documents as well as the respective accreditation documents for the various academic disciplines are available for review in the College Library.

THE CITY UNIVERSITY OF NEW YORK

The City University of New York (CUNY), of which the College of Staten Island is a part, traces its beginning to 1661 and a public referendum that provided tuition-free higher education for residents of New York City. The municipal college system grew rapidly and in various colleges were consolidated as The City University of New York by an act of the New York State Legislature in 1961. CSI is comprised of 11 senior colleges, six community colleges, a graduate school, a law school, and a medical school. It is the largest municipal college system and the third largest university in the nation.

ADMISSIONS

Office of Recruitment and Admissions
North Administration Building (2A), Room 105
Director: Ms. Mary Beth Reilly
Telephone: 718.982.2010

Graduate Applications
Application booklets and information about the graduate programs may be obtained from the Office of Recruitment and Admissions.

Admission Requirements for Graduate Programs

Applicants for graduate study should have a bachelor’s degree or its equivalent from an accredited institution of higher education. Transcripts from all post-secondary institutions attended are required. The cumulative grade point average (GPA) used for admission will be based on all undergraduate and graduate grades. In addition, applicants are expected to meet the specific requirements for the graduate program to which they are applying. Some programs may require scores on the Graduate Record Examinations (GRE) or Graduate Management Admissions Test (GMAT). Please see the summary Admissions Requirement Table for the specific program for detailed requirements.

A minimum TOEFL score of 550 (paper), 213 (computer), or 79-80 (internet) is required for all students for whom English is a second language. Applications are evaluated after all official transcripts and supporting documents have been received and applicants are notified by mail regarding their acceptance.

Non-Matriculated Status

A student who does not fully satisfy the matriculation requirements, who has not completed the minimum course work and does not meet the specific requirements of the College for graduate status may be admitted as a non-matriculated student.

Non-Matriculated Study for Visiting Students

Students enrolled in another college may enroll as non-matriculated students if they are in good academic standing at their home college and have permission to take courses at CSI. In addition, a selected number of courses in participating programs/departments are available for students who wish to take courses for personal or professional reasons, without intending to pursue a degree. Not all graduate courses are open to non-matriculated students.

For more information, please obtain an “Application for Graduate Non-Matriculated Study for Visiting Students” from the Office of Recruitment and Admissions or download a copy from www.csi.cuny.edu/graduatestudies.

Doctoral Programs

Applications to the Doctoral programs in Biology (Neuroscience), Computer Science, Physical Therapy, Physics, Polymer Chemistry, and Psychology (Learning Processes) are made directly to the Graduate School and University Center (CUNY), 365 Fifth Avenue, New York, NY 10016; 1-212-817-7470. Email: admissions@gc.cuny.edu. The Website address is www.gc.cuny.edu.

Readmission

Graduate students who do not register for a semester and then decide to return in a subsequent semester, and who have not maintained their matriculated status, must apply for readmission at least 30 days before registration. Requirements for programs may change and students applying for readmission must meet current requirements. Students who have a GPA below 3.0 will need approval from their program coordinator. Readmission is not guaranteed and may be denied in such cases. (See fee schedule in the Schedule of Classes for current readmission fee.) You can download a graduate readmission form from www.csi.cuny.edu/graduatestudies.

Veterans

The veterans advisement service is supervised by the Registrar. Assistance is available in interpreting regulations and policies of the Veterans Administration, and educational and financial counseling is offered. The Office of the Veterans Advisor is in the North Administration Building (2A), Room 110.

Immunization Requirement

New York State Public Health Law requires immunization against measles, mumps, and rubella for some students. All students born on or after January 1, 1957, who are enrolling for six or more credits must have proof of immunization on file at the College Health Center. Students may be referred to the College Health Center for medical evaluation. Transfers must request that their health records be transferred to CSI. New York State Public Health Law 2817 requires all students to complete and return the meningococcal vaccination response form prior to registration. Information and the immunization forms are available at the Health Center and the Registrar’s Office, and in the Schedule of Classes.
Tuition and Fees

Office of the Bursar
North Administration Building (2A), Room 105
Bursar: Mr. Michael D. Baysky
All tuition and fees listed in this Catalog and in any registration material issued by the College are subject to change by action of the Board of Trustees without prior notice.

All tuition and fees are necessarily subject to change without notice; at any time, upon action by the Board of Trustees of The City University of New York regardless of tuition and fee schedules in effect at the time of this printing.

If you do not make full payment on your tuition and fees and other college bills and your account is sent to a collection agency, you will be responsible for all collection costs, including agency fees, attorney fees and court costs, in addition to whatever amounts you owe the college.

In addition, non-payment or a default judgement against your account may be reported to a credit bureau and reflected in your credit report.

Graduate Tuition for Master's Degree Programs

New York State Residents
Part-time, per equated credit per semester:
$270.00 $3,200.00

Non-Resident Students (Including Foreign Students)
Part-time, per equated credit per semester:
$590.00 $690.00

Graduate students who register in an undergraduate course as part of their program, and are receiving graduate credit for the course, will be charged at applicable graduate rates according to residency. Charges to be included are not to exceed the stipulated maximum semester rate for the applicable graduate tuition. Graduate students taking an undergraduate course as non-degree students, and receiving undergraduate credit, pay applicable undergraduate tuition.

Student Status
Graduate students are considered part-time if registered for 11 equated credits or less, and full-time if registered for 12 or more equated credits.

Place of Residence
Students are eligible for the tuition rate for residents of New York State if they meet the following requirements for resident status: those 18 years of age or older, United States citizens or aliens with permanent resident status, have maintained their principal place of abode in New York State for a period of 12 consecutive months immediately preceding the first day of classes for the semester under consideration, and state their intention to live permanently and maintain their principal place of residence in New York State. The residence of a person under the age of 18 is that of his/her parents unless the person is an emancipated minor (one whose parents have intentionally and voluntarily renounced all the legal duties and surrendered all the legal rights of their position as parents). Students currently classified as non-residents, who wish to apply for resident status, must present proof that the above conditions have been met to the Office of Admissions or the Office of the Registrar.

Maintenance of Matriculation Fee
Graduate students who are not registered in a given semester must pay a maintenance of matriculation fee of $75 to New York residents or $1,250 for non-residents a semester if they wish to maintain their matriculated status. If the fee is not paid, the student will be considered to have withdrawn and must apply for readmission.

Non-Instructional Fees
The Student Activity Fee is billed to all students at the following rates:

- Full-time: $74.00
- Part-time: $49.00

Fees include a $4.00 contribution to the New York Public Interest Research Group (refundable through the NYPISRIG fee) and an 8% Student Government Fee. Non-instructional fees are non-refundable.

Miscellaneous Fees and Charges

- Note: All students pay the Consolidated Service Fee and the Technology Fee.
- Consolidated Service Fee $15
- Technology Fee $75 (full-time students per semester)
- $75.00 (part-time students per semester)
- Application $125
- Readmission $10
- Late registration $25
- Reinstatement $15
- Program change $18
- Late payment $25
- Program change $18
- Payment reprocessing $35
- Special examination $35
- each additional $5
- Transcript $7 Each
- Duplication $15
- Duplicate I.D. card $5
- Duplicate bill $5
- Thesis binding $15

Materials Charges
Special materials charges of $10 or more are required in some courses. Details may be found in each semester's Schedule of Classes. Materials charges are not refundable.
Library Fines

Overdue books: general circulation: 10 cents per day, including days on which the Library is closed, to a maximum of the current price of the item.

Lost items: $1.20 per overdue hour to a maximum of the current price of the item.

Damaged books: borrower must pay any overdue fines up to and including the date the item is reported as being damaged, plus an amount to be determined by the nature and extent of the damage, not to exceed the current price of the item, plus a processing charge of $10.

Return of Title IV Funds

Title IV funds (Pell, SEOG, Direct, and Perkins loans) to recipients who are withdrawn from all courses, officially or unofficially, are subject to recalculation to determine earned federal financial aid. This calculation may result in a requirement of payment toward tuition and fees, which previously was determined to have been received.

FINANCIAL AID

Office of Student Financial Aid
North Administration Building (2A), Room 401
Director: Mr. H. Sherman Whimpey
Telephone: 1.718.982.2050
Fax: 1.718.982.2037 Email: finaid@postbox.csi.cuny.edu
Website: www.csi.cuny.edu/finaid

Application Procedures and Deadlines

Obtain/Use a Federal PIN Number at www.pin.ed.gov

Graduate students/couples – you will need a federal PIN number to sign the FAFSA (Free Application for Federal Student Aid) and TAP (Tuition Assistance Plan) applications when you file on the Web. This federal PIN will also be needed to sign the electronic Multiple Year Promisory Note (e-MPN), if you apply for a Direct Loan, and may also be used to access your federal grant and loan history, which is located at www.nslds.ed.gov.

You may obtain a federal PIN number, or have an old one reissued, at www.pin.ed.gov. In two to five days you will receive an email instructing you to access a one-use URL where you will find your federal PIN number.

College Codes

CSI’s FAFSA college code is 002698 and the TAP code is 1417.

Apply on the Web at www.fafsa.ed.gov

If you filed a FAFSA for the last academic year you must file a RENEWAL FAFSA. The RENEWAL FAFSA will have most questions answered with last year’s data. If the data is unchanged, you advance to the next screen. Answer all unanswered questions and submit your application. When the Confirmation Page appears on your screen, print a copy for your records. Then use the Hyperlink on the Confirmation Page under the heading “New York State Residents” to go to your e-TAP application. Review, correct, and complete the application, then submit it for processing. Your federal PIN number on your FAFSA is also recognized as your signature on your e-TAP application.

Priority Deadlines

The priority deadline is March 30 for students applying for federal and state financial aid for the summer/fall and spring semesters, and November 30 for students applying for federal and state financial aid for just the spring semester.

Transfer Students

Follow the application procedures and deadlines listed above to apply for federal and state financial aid.

Some Financial Aid May Be Taxable

All students are urged to maintain accurate records of the financial aid received and to keep receipts of related educational expenses. For more information about possible federal tax liability, consult your tax advisor or the Internal Revenue Service.

Federal Satisfactory Academic Progress Guidelines

In order to be making satisfactory academic progress toward a degree, for purposes of receipt of Title IV Federal Student Assistance, a graduate student must meet at least the GPA required for good academic standing at the institution and:

1. be a U.S. citizen, or
2. be an eligible non-citizen, and
3. be matriculated, and
4. carry at least six credits a semester, and
5. not be in default of any federal loan or, if in default, have completed the required process to obtain “Renewed Federal Aid Eligibility,” and
6. not owe a refund on any Title IV Grant, and
7. be making satisfactory progress toward a graduate degree.

Withdrawal from Courses May Affect Your Financial Aid

Federal and state financial aid programs have academic guidelines that students must meet in order to maintain their eligibility for these programs. To learn more about these requirements, review the Federal Satisfactory Academic Progress Guidelines and the TAP Progress and Pursuit Chart.

Eligibility:

To be eligible for any of the federal financial aid programs, a student must:

1. be a U.S. citizen, or
2. be an eligible non-citizen, and
3. be matriculated, and
4. carry at least six credits a semester, and
5. not be in default of any federal loan or, if in default, have completed the required process to obtain “Renewed Federal Aid Eligibility,” and
6. not owe a refund on any Title IV Grant, and
7. be making satisfactory progress toward a graduate degree.

Refunds

When courses are canceled by the College, a full refund of tuition and fees will be made: In cases of student-initiated withdrawal, the date on which the withdrawal application is received by the Registrar; not the last date of attendance, is considered the official date of withdrawal for the purpose of computing refunds.

Withdrawal from a course before the beginning of classes allows a 100 percent refund of tuition only; withdrawal in order to register at another unit of The City University during the same semester allows a 100 percent refund of tuition and fees, which previously was determined to have been satisfied.

Federal Satisfactory Academic Progress Guidelines

Eligibility:

To be eligible for any of the federal financial aid programs, a student must:

1. be a U.S. citizen, or
2. be an eligible non-citizen, and
3. be matriculated, and
4. carry at least six credits a semester, and
5. not be in default of any federal loan or, if in default, have completed the required process to obtain “Renewed Federal Aid Eligibility,” and
6. not owe a refund on any Title IV Grant, and
7. be making satisfactory progress toward a graduate degree.

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Eligibility:

To be eligible for any of the federal financial aid programs, a student must:

1. be a U.S. citizen, or
2. be an eligible non-citizen, and
3. be matriculated, and
4. carry at least six credits a semester, and
5. not be in default of any federal loan or, if in default, have completed the required process to obtain “Renewed Federal Aid Eligibility,” and
6. not owe a refund on any Title IV Grant, and
7. be making satisfactory progress toward a graduate degree.

Withdrawal from a course before the beginning of classes allows a 100 percent refund of tuition only; withdrawal in order to register at another unit of The City University during the same semester allows a 100 percent refund of tuition and fees, which previously was determined to have been satisfied.
Appeals will be evaluated for mitigating circumstances resulting from events such as personal illness, injury, personal tragedy, changes in academic program, and the reasonableness of the student’s capability for improvement to meet the appropriate standard for the degree program in which the student is enrolled.

Federal Work-Study Program
This program provides on- and off-campus employment opportunities for eligible students. At the time this Catalog was written, on-campus wage rates were $9.00 per hour for graduate students. Work schedules are developed around a student’s class schedule and the average work schedule consists of ten hours per week.

Federal Perkins Loan Program
This is a loan program and funds received under this program must be repaid. All students receiving a Federal Perkins Loan complete a Web Federal Perkins pre-loan conference and take and pass the Default Reduction Test before the first disbursement of the loan proceeds each year. No Federal Perkins Loans will be disbursed to students who do not comply. Students are required to disclose their driver’s license number when applying for a Federal Perkins Loan and must provide, in writing, changes of address to the Office of Student Financial Aid within ten days of the change. Federal Perkins Loan borrowers must complete a Web Exit Interview prior to graduation, if they plan to transfer to another institution, leave the College for any reason, or continue their education as a less than half-time student (less than six credits). The online Entrance and Exit Interview sessions may be reached through the Website www.csi.cuny.edu/finalaid.

Federal Direct Subsidized Loans
FAFSA data must be received before a Federal Direct Loan can be processed. Graduate students may borrow up to $8,500 annually if the College budget permits. The aggregate graduate Federal Direct Loan limit is $138,500, which includes undergraduate borrowing.

Federal Direct Unsubsidized Loans
A student applicant must establish his/her eligibility or ineligibility for the Federal Direct Subsidized Loan before a Federal Direct Unsubsidized Loan can be processed. Students borrowing under this program must either capitalize the interest or pay the interest on a monthly basis while attending graduate school. The maximum yearly amount a student can borrow from both the Federal Direct Subsidized and Federal Direct Unsubsidized Loan Programs combined is $18,500.

New York State Financial Aid
Eligibility: A student must:
1. be a New York State resident for a year prior to the start of a semester;
2. be a U.S. citizen or permanent resident alien or paroled refugee, and
3. be a full-time matriculated student.

New York State Grants
Students must meet the NYS Grant and Pursuit guidelines prior to each term. Students who do not meet these standards may lose eligibility as set forth in Section 145.2.1 of the Commissioner’s Regulations.

Federal Direct Loan Programs
The elements listed below are common to all the Federal Direct Loan programs unless otherwise noted:
1. The application may be obtained from The Hub, the Student Financial Aid Office, or from the CSI Website at www.csi.cuny.edu/finalaid.
2. Promissory notes must be completed on the Web at www.csi.cuny.edu/finalaid.
3. All Direct Loans must be repaid.
4. A Web Entrance Interview is required for the first loan at CSI. This is available through the Web www.csi.cuny.edu/finalaid.

Federal Direct Subsidized Loans
Students must meet the TAP Progress and Pursuit guidelines prior to each term. Students who do not meet these standards may lose their TAP eligibility and are notified of this by the Registrar. The TAP Progress and Pursuit Chart appears below.

Appeals
A student who has failed to meet either the Progress or Pursuit guidelines or both may apply for one waiver, which, if granted, will allow that student one additional TAP award. At the end of the waiver semester, the student must meet the TAP Progress and Pursuit requirements to be eligible for all future TAP awards.

Program Pursuit
To be certified for payment:

<table>
<thead>
<tr>
<th>Student must have completed this percentage of coursework the last semester</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
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<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>credit hours</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

*Undergraduate payments, if any, are counted toward program pursuit for graduate students.

Academic Progress
To be certified for payment:

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>credit hours</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>24</td>
<td>30</td>
<td>36</td>
<td>42</td>
</tr>
</tbody>
</table>

*Includes successful completion of credit equivalent work as set forth in Section 145.2.1 of the Commissioner’s Regulations.

CSI Financial Aid
Scholarships
A limited number of scholarships are available for full-time graduate students in recognition of academic excellence and community/college service. Designated scholarships are awarded for study in a variety of fields. Information and applications are available at the Center and Scholarship Center, South Administration Building (1A), Room 105; telephone 1.718.982.2500. Applications are also available on the Web at www.csi.cuny.edu. See the deadline dates on the Web.

Aid for Doctoral Candidates
Information about fellowships, assistantships, and other financial aid opportunities for doctoral candidates taking coursework at CSI is available through the Financial Aid Office at the Graduate School and University Center at 365 Fifth Avenue, New York, NY 10016-4309; telephone 1.212.817.7460; and via the Web at www.gc.cuny.edu.

You may also link to the Graduate School Website from CSI’s Financial Aid Webpage at www.csi.cuny.edu/finalaid.
ACADEMIC POLICIES AND PROCEDURES

Advisement
Upon acceptance to the College of Staten Island, graduate students are assigned an academic advisor. Before registration each semester students must meet with their advisors to plan their programs.

Registration
Students must register each semester. Registration materials are sent by the Office of the Registrar prior to registration to all current, matriculated, and newly admitted students. Registration is not complete until all financial obligations have been satisfied. Programs may be changed and courses dropped or added until the end of the first week of classes. A detailed set of instructions for registration is published each semester in the Schedule of Classes. Students who do not register each semester must maintain their matriculation or apply for readmission (see section under Admissions).

Full-Time Classification
Graduate students are classified as full-time if they are taking 9 or more credits.

Attendance Policies
Instructors are required to keep an official record of class attendance. Students are expected to attend all sessions. A student who is absent in excess of 15 percent of the class hours in one semester is assigned a grade of WA (withdrew unofficially), subject to the discretion of the instructor.

Programs of Study
The following academic policies apply to all of the graduate degree programs in the College. Please refer to the program description for any specific policies.

1. Transfer Credits.
   Graduate courses taken within the last five years at an accredited college or university may be accepted at the discretion of the coordinator of the graduate program. A maximum of 32 graduate credits in graduate courses, with a minimum grade of B (3.0) in each course, may be applied toward a graduate degree from the College of Staten Island. For specific requirements, please see the program description.

2. Undergraduate Courses.
   Graduate students may not enroll in undergraduate courses for graduate credit. Graduate students may, however, enroll in undergraduate courses in order to remedy deficiencies in their preparation for graduate study. Such courses will not be credited toward the requirements of the graduate degree. Non-matriculated students who are completing undergraduate coursework to qualify for matriculated status must maintain a minimum GPA of 3.0 in order to be considered for matriculation. (See also specific requirements for remedying deficiencies in the description of the degree program.)

3. Credits as Non-Matriculant.
   Non-matriculant students may be admitted to matriculated status, unless the student already holds another master's degree.

4. Independent Study.
   Graduate students may take a maximum of two independent study courses. Approval of the graduate program coordinator and the Dean of the division is required.

5. Five-Year Time Limit.
   All credits for a graduate degree must be completed within five years. Extensions may be granted only with the written permission of the program coordinator.

6. Grade Point Average for Retention.
   Students must have a minimum grade point average (GPA) of 3.0 (B) to be retained in a graduate program. Students whose GPA falls below 3.0 are placed on probation status. While they are on probationary status, their registration forms must be signed by the coordinator of their program. Students must raise their GPA only through enrollment in graduate courses approved by their program coordinator.

Students on academic probation will not be dismissed but will be automatically continued on probation as long as they achieve a grade point average of 3.0 or better each year until they have reached the required minimum grade point average. Students who fail to achieve the minimum 3.5 grade point average for any year while on probation will be dismissed.

7. Grade Point Average for Graduation.
   Students must have a minimum GPA of 3.0 (B) in graduate-level courses in their program to graduate.

8. Grade Appeal.
   Students wishing to appeal a grade other than WU (withdraw unofficially) or FIN (withdraw due to incomplete) must do so within 60 school days, excepting summer session, following the end of the semester. Appeals must be submitted in writing to the chairpersons of the department in which the course was offered. Upon receipt of the appeal, the chairperson shall direct the student to discuss the issue with the instructor who assigned the grade. If the issue remains unresolved, the student may request a review by the Department Committee on Grade Appeals, composed of three faculty members. The committee shall review all information presented by the student and the instructor and render a decision within 30 days after the student requested the grade review. If the committee upholds the appeal by a vote of 3-0, the chairperson shall change the grade to reflect the decision of the committee. If the committee does not uphold the student, there is no further appeal within the College.

In all deliberations on grade appeals, the burden shall be on the student to prove that a violation of the College's regulations occurred or that the instructor's own stated criteria for grading which shall have been enunciated at the beginning of the semester, have not been followed. Students seeking advice on the procedure may consult a counselor.

Students wishing to appeal a WU or a FIN grade must file a written petition supported by documentation to the Graduate Studies Committee.

   Students whose academic performance falls below the minimum requirements may be dismissed from the College upon review by the Graduate Studies Committee.

10. Graduation.
    Students who believe they will have fulfilled the degree requirements must file for graduation by the date specified in the College calendar in the Schedule of Classes. There is no fee for this application. Application for graduation may be submitted online at www.csi.cuny.edu/Registrar or in person at The Hub, North Administration Building (G2), Room 100.

Grading Symbols and GPA equivalents:
Grading symbols used are: A (4.0), A- (3.7), B+ (3.3), B (3.0), B- (2.7), C+ (2.3), C (2.0), F (0), INC (incomplete), FIN (failure due to incomplete), W (withdraw), WA (administrative withdrawal), WU (withdraw unofficially), and FIN (for thesis course).

Grading in courses in which a student has received an F grade may be repeated, however, the grade of F will continue to be calculated in determining the GPA. Students should refer to the requirements of the program for any specific policy regarding F grades.

INC: The grade INC is a temporary grade assigned when, in the instructor’s judgment, course requirements are not completed for valid reasons. Recipients of INC are required to complete all assignments before the end of classes during the succeeding semester. Students should not register a second time for a course in which an INC was awarded. The INC will become a FIN and the course will appear a second time on the student’s transcript with the grade earned.

FIN: If a grade of INC is received before the last day of classes of the succeeding semester, it will automatically be changed to a grade of FIN. If the required work is not completed for continuing valid reasons, the course instructor may grant an extension. Such extensions shall not extend beyond the times beyond the original due date of the incomplete work.

W: Students may withdraw without academic penalty from any course up to the end of the week of the semester (see College calendar for deadline to withdraw). A grade of W will be assigned. After that date, students may petition the instructor and the chairperson for permission to withdraw until the last day of classes. Consult the Office of the Registrar for the procedures to be followed when withdrawing from a course. If these procedures are not followed, students may receive a penalty grade of WU. In cases of illness, students may apply to the Health Center for a medical withdrawal. Under no circumstances will a W be assigned after the last day of classes without positive action by the Graduate Studies Committee or its designee.

WA: Students not in compliance with the New York State immunization requirement receive the grade of WA. This grade carries no academic penalty.

WU: An unofficial withdrawal results in a grade of WU. No credit is received for a course in which this grade is assigned, it is equivalent to a grade of F.

Graduate Studies Committee
The Graduate Studies Committee reviews student records and considers student appeals related to admission, dismissal, and graduation. Students can petition the Committee through a counselor in the Division of Student Affairs.

The “Grandfather” Clause
Requirements in this Catalog were approved effective September 1, 2005. The “Grandfather” clause is designed for students who matriculated in a program, major, or curriculum prior to that date. This provides that students may meet degree requirements in effect the year of their matriculation in a particular program, curriculum, or major provided the student has not had an interruption in matriculation exceeding four consecutive fall and spring semesters.

Students changing major or curriculum are subject to the requirements in effect the year of the change.

Transcripts and Grade Reports
Grade reports are issued at the end of each semester. Students may request that their transcript be sent to other institutions (see Fee Schedule). Official transcripts are signed and sealed by the Registrar.

Library Submission of the Master’s Thesis
A finished master’s thesis is a scholarly work that is the product of extensive research and related preparation. The Library will make theses publicly available to students, faculty, and outside researchers. For purposes of preservation, and to prepare them for binding, theses must adhere to uniform standards of format and construction. The guidelines for submission to the CUNY Library are in Appendix i.

Academic Integrity, Plagiarism, and Cheating
Integrity is fundamental to the academic enterprise. It is violated by such acts as borrowing or purchasing assignments (including but not limited to term papers, essays, and reports) and other written assignments; using concealed notes or crib sheets during examinations; copying the work of others and submitting as one’s own, and misappropriating the knowledge of others. The sources from which one derives one’s ideas, statements, terms, and data, including Internet sources, must be fully and specifically acknowledged in the appropriate form, failure to do so is intentional or unintentionally constitutes plagiarism.

Violations of academic integrity may result in a lower grade or failure in a course and in disciplinary actions with penalties such as suspension or dismissal from the College.

Academic Freedom
The City University of New York subscribes to the American Association of University Professors 1940 Statement of Principles on Academic Freedom, and the College of Staten Island respects academic freedom for faculty and students as well as freedom in their personal lives for all individuals in the campus community.
Computer User Responsibilities

The computer resources of The City University of New York and the College of Staten Island must be used in a manner that is consistent with the University’s educational purposes and environment. All users of computer resources are expected to act in a spirit of mutual respect and cooperation, and to adhere to the regulations for their use (see Undergraduate Catalog, appendix ii). The University reserves the right to monitor, under appropriate conditions, all data contained in the system to protect the integrity of the system and to ensure compliance with regulations.

I.D. Cards

A validated I.D. card, issued by the Office of Public Safety, must be carried by a student on campus at all times.

ACADEMIC SERVICES/STUDENT SERVICES

Campus Center - Office: Campus Center (1C), Room 201

The Campus Center is the focal point of extra- and co-curricular student life. It houses the Office of Student Life, the Student Government and clubs, student publications, the Program Development Committee, the CSI Association Inc., and the Auxiliary Services Corporation. Such services as the bookstore, cafeterias, Park Café, the Health and Wellness Center, the Wellness Program, the Peer Drop-in Center, and the Pray/meditation Room are located in the Campus Center. Lounges for entertainment and studying, a computer lab, a video game room, conference and meeting rooms, and lockers are available for student use. WSI-AFM (88.9) broadcasts from the Campus Center. Questions regarding use of facilities and locker rentals may be directed to the Campus Center, Room 201. The telephone number is 1.718.982.3071.

Center for the Arts - Office: Center for the Arts (1P), Room 116

The Center for the Arts contains, in the instructional wing, the Department of Media Culture and the Department of Performing and Creative Arts, studios, performance and rehearsal spaces, a screening room, a recital hall, a studio theater, film and video production facilities, and laboratories for communications and graphics. The workshops include facilities for print making, painting, sculpture, photography, electronic music, and recording. The Center houses the Clara and Arleigh B. Williamson Theatre, a 442-seat, proscenium-stage theater; a 911-seat Concert Hall; a recital hall and a lecture hall; and an art gallery. The Center for the Arts presents a year-round performing arts series that includes jazz, drama, dance, classical, popular, folk, world, country, and family programming.

Center for International Service - Office: North Administration Building (2A), Room 206

The Center for International Service encourages and supports the international component of the academic life of the College. The Center provides direction and assistance in matters affecting the College’s international student population, sponsors study abroad programs, directs scholarship and student exchange programs, administers the English Language Institute, and facilitates international development programs. Guidance for the Center’s activities is provided by a faculty advisory committee.

Disability Services - Office: Center for the Arts (1P), Room 301

The Office of Disability Services has responsibility for providing services for students with documented disabilities. All documentation is kept confidential and should be submitted directly to the Office. Services include pre-admissions counseling and accessibility information, advisement, priority registration, and testing accommodations. Software for tutorial programs, personal computers, scientific calculators, tape recorders, and a Braille writer are available. The Resource Center for the Deaf serves the specific needs of deaf and hard of hearing students by providing interpreters, captioning, tutors, and note-takers. Interpreters are available for academic advisement, teacher conferences, or college business. The College’s policy for students with disabilities conforms to federal guidelines and the Office of Disability Services offers services mandated by federal and state law. All students with disabilities are encouraged to use the services of the Office. Services are also available to students who are temporarily disabled.

www.csi.cuny.edu/disabilityservices

Evening, Summer, and Weekend Services - Office: North Administration Building (2A), Room 204

A wide choice of courses have regularly scheduled evening, summer, and weekend classes as integral components of the College’s offerings. Courses are scheduled to accommodate matriculated students in graduate, baccalaureate, and associate’s degree programs who can attend only in the evening or on weekends, as well as those students whose classes are mainly on weekdays.

The Summer Session offers undergraduate and graduate courses in a mix of schedules: four-week courses meet day and evening, Monday through Thursday in June and July; six-week courses meet Saturday and Sunday mornings during June and July; eight-week courses meet day and evening, Monday/Wednesday or Tuesday/Thursday during June and July.

Matriculated and non-matriculated students may register for one or more courses in the evening, summer, and weekend sessions.

Health Services - Office: Campus Center (1C), Room 112

The College Health Center, located on the main floor of the Campus Center, Room 112, is staffed by College personnel, including a full-time Registered Nurse and part-time nurse practitioners (funded by the Student Activity Fee) in collaboration with Staten Island University Hospital. Services include emergency care, physicals, immunizations, consultations, and referrals to outside agencies and clinics, smoking cessation, nutritional counseling, and HIV/AIDS counseling and testing. The telephone number is 1.718.982.9045, TTY 1.718.982.3315; email: healthcenter@mail.csi.cuny.edu. For more information, please consult our webpage at www.csi.cuny.edu/studentaffairs/healthcenter.

Laboratories

The Biological Sciences/Chemical Sciences Building (6S), home of the Department of Biology, the Department of Chemistry, the Center for Environmental Science, and the Center for Developmental Neuroscience and Developmental Disabilities, contains 74 state-of-the-art laboratories for study and research. The ten departmental buildings in the academic Quadrangles house instructional, tutorial, and research laboratories; and personal computer classrooms.

Library/Research Services - Office: Library (1L), Room 100

The Library is the focal point of the South Academic Quadrangle. The building, with its distinctive rotunda, is the home for five central services: a study center for the campus community, a broad collection of books and journals in the liberal arts and sciences, computer facilities and online services and databases that serve as points of access to informational resources beyond the walls of the Library, an
Academic Services/Student Services

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Institutional facility for the teaching of information retrieval and information literacy, and media distribution services in support of instruction.

Seventy-five computer workstations for student use are available throughout the building. The general reference area is located on the first floor as is the faculty Center for Excellence in Learning Technology. The second floor leads to the elegant archives facility, the distance-learning center, the microform area, the Library instruction facility, and the Media Services unit. The circulating book collection and the print journal holdings are housed on the third floor.

Hours of Service:
Monday–Thursday: 8:00am – 10:00pm
Friday: 8:00am – 6:00pm
Saturday: 9:00am – 5:00pm
Sunday: Noon – 5:00pm

Library instruction service includes orientation tours, open workshops, and reference consultations. Reference librarians provide service at the General Reference Desk on the first floor at all times when the Library is open. The Library’s catalog, which can be accessed online around the campus, is available throughout the building. The general reference area is located on the first floor, as is the faculty Center for Excellence in Learning Technology. The second floor leads to the elegant archives facility, the distance-learning center, the microform area, the Library instruction facility, and the Media Services unit. The circulating book collection and the print journal holdings are housed on the third floor.

The Collection: The holdings include 220,000 bound volumes of books, 6,000 online databases (of which more than 30 are full-text), 900 current print journal subscriptions, 800 titles in microform, 3,000 video and films, and over 4,000 sound recordings.

The Online Catalog: The CSI Library is a member of the CUNY-wide integrated library system. Access to CUNY+ , the online union catalog portion of the system, is available throughout the campus as well as from offsite.

Borrowing Privileges: Students and faculty from CSI and other CUNY colleges must present current ID cards in order to borrow books.

All CSI students are automatically set up with an email account when they register for classes their first semester. Student’s can obtain information about their account by visiting any open computer laboratory; by going to the Library Building (1L), Room 204; by calling 1.718.982.4080; or by going to our Website at www.csi.cuny.edu/studenthelpdesk/ServicesInstructions.

Programs and Degree Requirements

Graduate Degrees and Certificate Programs

Biology (MS)

Business Management (MS)

Chemical Sciences (MS)

Computer Science (PhD), offered jointly with the City University Graduate School

Education

Childhood (Elementary) (MSE)

Adolescence (Secondary) (MSE)

Special (MSE)

Post-Master’s Advanced Certificate for Leadership in Education

English (MA)

Environmental Science (MS)

History (MA)

Library Studies (MA)

Neuroscience, Mental Retardation, and Developmental Disabilities (MA)

Nursing

Adult Health (MS)

Genomeal (MS)

Post-Master’s Advanced Certificate in Adult Health Nursing

Post-Master’s Advanced Certificate in Geronomology Nursing

Physical Therapy (BS/MS)

Doctoral Degree Programs

Biology (Neurosciences subprogram) (PhD), offered jointly with the City University Graduate School

Computer Science (PhD), offered jointly with the City University Graduate School

Physical Therapy (DPT), offered jointly with the City University Graduate School

Physics (PhD), offered with the PhD program of the City University Graduate School

Polymer Chemistry (PhD), offered jointly with the City University Graduate School and Brooklyn College

Master of Science in Biology (MS)

Program Coordinator: Professor Richard Vot

Biological Sciences/Chemical Sciences Building 6S, Room 129

Email: biologygrad@mail.csi.cuny.edu

Telephone: 1.718.982.3862

(See section: Graduate Courses in Selected Disciplines for biology courses for teachers.)

The Master of Science degree program in Biology is designed to provide research training and experience in the discipline of biology and allow students to specialize in such areas as molecular/cellular experimentation and ecology. The program is an appropriate foundation for students whose current goal is a terminal master’s degree as a credential for laboratory technicians and for students who intend to continue to study toward the doctorate.

The program prepares students for careers in the expanding fields of molecular biology, genetic engineering, and conservation biology. Graduates of the program will be prepared to conduct research, to evaluate the research of others, and to write and speak effectively in scientific fields. The program offers the door to careers in clinical and research laboratories, industry, teaching, science writing, and in governmental agencies in the fields of health, environment, and parks.

Students with initial certification in Adolescence Education* (Biology) wishing to obtain professional certification in Biology will complete a program of 33 graduate credits. Students in the program enroll in ESC 601 (3 credits) and BIO 799 (6 credits) with others in their cohort. In addition to the courses listed above, they are required to take EDI 696 Advanced Studies in Teaching Secondary School Science (3 credits). Students who choose this program of study will complete a thesis with guidance from the faculty of the Department of Biology and Education.

*Approved by University Governance; pending NYSED approval.

Admissions Requirements

The Department of Biology Graduate Admissions Committee makes all decisions regarding admission to the program as a matriculated or non-matriculated student. Applicants are required to submit a CSI Graduate Admissions Application and a Department of Biology Supplement.

1. BS in Biology degree from an accredited college (students in the last semester of undergraduate study and students with a baccalaureate in another discipline may also be considered for admission)

2. Overall GPA of 2.75 (B-) and a GPA of 3.0 (B) in undergraduate biology courses, of which six credits may be allocated to thesis research. Four courses are required of all candidates: BIO 603, BIO 604, BIO 605, and BIO 606.

3. A minimum GPA of 3.0 (B) is required for the 30 credits of required courses.

4. General Aptitude Test and the Advanced Test in Biology of the Graduate Record Examination.

Retention in the Program

A minimum GPA of 3.0 (B) is required for the 30 credits of required courses, of which six credits may be allocated to thesis research. Four courses are required of all candidates: BIO 603, BIO 604, BIO 605, and BIO 606.

The program requires a minimum GPA of 3.0 (B) is required for the 30 credits of required courses, of which six credits may be allocated to thesis research. Four courses are required of all candidates: BIO 603, BIO 604, BIO 605, and BIO 606. The housing, tuition, and fees, as well as the student’s career goals.

Prior to the completion of 15 credits, students are required to present their research proposal to their Thesis Committee. The student’s Committee will consist of at least three members, two of whom must be faculty in the Biology Department, including the student’s advisor.

Prior to the completion of 15 credits, students must provide evidence of proficiency in writing and speaking, computer skills, and statistics.
Transfer Credits
Acceptance of any graduate course taken elsewhere toward the requirements of a CUNY degree is at the discretion of the coordinator of the graduate program. A maximum of nine credits of courses taken elsewhere in The City University may be applied to the MS in Biology, and a maximum of six credits of courses taken at colleges outside The City University may be applied to the MS in Biology, wherever it is offered.

Degree Requirements: 30 credits

Four required courses: (11 credits)

- BIO 665 Scientific Communication I 3 credits
- BIO 664 Scientific Communication II 3 credits
- BIO 665 Statistical Analysis 4 credits
- EIS 601 The Biosphere and Our Species 3 credits

Ecology, Evolution, and Behavioral Biology; Molecular, Cellular, and Developmental Biology; Multidisciplinary; and Physiology courses chosen from the following lists (11 credits)

Ecology, Evolution, and Behavioral Biology

- BIO 720 Entomology
- BIO 721 Evolution of Primates
- BIO 722 Marine Ecology
- BIO 723 Ornithology
- BIO 724 Population Biology
- BIO 725 Conservation Biology
- BIO 726 The Mammals

Molecular, Cellular, and Developmental Biology

- BIO 740 Advanced Microscopy
- BIO 741 Cell Culture Techniques
- BIO 742 Cell Physiology
- BIO 743 Cellular Toxicology
- BIO 744 Laboratory Methods in Molecular Genetics
- BIO 751 Molecular Genetics

Multidisciplinary

- BIO 760 Introduction to Biostatistics and Genomics
- BIO 761 Mathematical Methods in Biology
- BIO 771 Principles of Epidemiology

Physiology

- BIO 790 Comparative Physiology
- BIO 791 Laboratory Method in Physiology
- BIO 792 Vertebrate Endocrinology
- BIO 793 Environmental and Evolutionary Physiology

In satisfying these 11 credits, students may take up to nine credits in other departments at CSI, at other senior colleges in CUNY, or at the Graduate School.

Research

BIO 799 Thesis Research 1–6 credits

Courses

BIO 605 Scientific Communication I 3 hours; 3 credits

The course focuses on scientific writing, with emphasis on the preparation, editing, and evaluation of scientific manuscripts and grant proposals. The student will critique current literature, prepare manuscripts, and review and defend grant proposals.

BIO 664 Scientific Communication II 3 credits

This course is a continuation of BIO 665 and emphasis will be placed on public speaking. The student will prepare materials for oral presentation, including making slides and tranparencies, and for poster presentations for delivery at scientific meetings. Students will also make real and poster presentations to an audience of faculty and fellow students.

Prerequisite: BIO 665

BIO 665 Statistical Analysis

3 lecture hours, 3 laboratory hours, 4 credits

Statistical analysis as applied to all biological fields, the course will emphasize analysis of students’ own data. ANOVA, regression, time series, and randomization tests will be included. Students must learn SPSS statistical program.

Prerequisite: EIS 126 recommended, or equivalent psychology courses

BIO 720 Entomology

3 lecture hours, 3 laboratory hours, 4 credits

A comprehensive introduction to entomology. Lectures will introduce insect structure and behavior with emphasis on (1) adaptations for locomotion, (2) ecology and reproductive behavior, (3) physiological processes, (4) insect-generated sound and its function, (5) migration and distribution, (6) developmental and metamorphic stages. Laboratory sessions will involve dissection of preserved and fresh specimens, observation of live animals, field collection, and identification.

Prerequisite: BIO 322 or BIO 338 or BIO 360 or equivalent, or permission of the instructor

BIO 721 Evolution of Primates

3 hours, 3 credits

Examines the evolution of primates from tree shrews to apes. Adaptations of morphology, physiology, locomotion, diet, foraging behavior, ability to adapt, tool use, territory, aggressive behavior, dominance hierarchies, mating systems, dispersal, social structure, and communication systems in Old and New World species to their environment. The socio-biology and ecology of selected species will be treated in greater detail.

Prerequisite: BIO 322 or BIO 338 or BIO 360 or equivalent, or permission of the instructor

BIO 722 Marine Ecology

3 hours; 3 credits

Field-oriented study of estuarine and pelagic ecosystems. This course will emphasize how spatial and temporal scales are critically important to the study of marine organisms. Students will learn specialized sampling and analytical techniques necessary for the study of marine systems. Topics will include comparisons of “rate-based” versus “abundance-based” studies of population dynamics plus comparisons of individual, population, and community levels of analysis.

Prerequisite: BIO 360 or equivalent

BIO 723 Ornithology

5 lecture hours, 3 laboratory hours, 4 credits

An introduction to ornithology. Lecture will introduce bird structure and behavior with emphasis on (1) anatomical and physiological adaptations for flight, (2) ecology and reproductive behavior, (3) song and its function, and (4) migration and distribution. Most laboratory sessions will be field trips for locating and identifying birds, observation of bird behavior, and recording bird songs. One or more laboratory sessions will include anatomical dissection and behavior of captive birds. There will be at least one overnight field trip to study nocturnal migration.

Prerequisite: BIO 322 or BIO 338 or BIO 360 or equivalent, or permission of the instructor

BIO 724 Plant Population Biology

3 hours, 3 credits

Ecological and evolutionary perspectives on the dynamics of plant populations. Topics include demography, life-history evolution, ecological genetics, phenotypic and genotypic variation within and between populations, competition, reproduction and breeding systems, pollination ecology, seed dispersal and germination, symbioses, clonality, and coevolution. In addition, the application of population concepts to environmental and conservation problems will be covered.

Prerequisites: BIO 228 and BIO 312 and BIO 560 or equivalents

BIO 727 Conservation Biology

(Also EIS 727) 3 hours, 3 credits

Conservation biology is a multidisciplinary field of environmental science. The objectives of this course are: (1) to understand global biodiversity in its historical context; (2) to learn how human impacts are endangering ecosystems around the world; (3) to identify the biological properties of organisms, populations, species, and systems that render them vulnerable; and (4) to explore means of protecting biodiversity and the ecological processes on which it depends.

Prerequisite: EIS 601

BIO 730 Principles and Methods of Systems, Evolution, and Phylogeny

3 lecture hours, 3 laboratory hours, 4 credits

Species concepts and the history of evolutionary thought. Mechanisms of evolutionary change. The history of life.

Prerequisite: BIO 322 or equivalent

BIO 735 Biogeography

5 hours; 4 credits

An introduction to the distribution of both terrestrial and aquatic animals and plants with emphasis on their prehistoric, historic, and present distributions and how these relate to the ecological conditions of the periods, methods of dispersal, and movement across the planet. Historical changes in scientific thought concerning the means of movement (e.g., land bridges, rafting, plate tectonics) are presented. The flora and fauna of unique regions of the Earth (e.g., Madagascar, Australia, South America, and Antarctica) will be examined for similarities and differences in their compositions. The effects of humans, early and present, on distribution are discussed.

Prerequisites: BIO 322 or BIO 338 or BIO 360 or equivalent, or permission of the instructor. NOTE: EIS 735 may substitute for this course

BIO 736 The Mammals

3 hours; 3 credits

The evolution of the various orders of mammals from monotreme to placental. Studies of the various morphological, physiological, and behavioral characteristics that define each order. Emphasis on adaptations of behavior, social structure, and mating systems to environmental conditions.

Prerequisites: BIO 322 or BIO 338 or BIO 360 or equivalent, or permission of the instructor

BIO 740 Advanced Microscopy

6 laboratory hours, 5 credits

Preparation of biological specimens for use in confocal laser scanning microscopy, scanning and transmission of electron microscopy, image analysis of micrographs.

Prerequisite: BIO 272 or equivalent

BIO 741 Cell Culture Techniques

6 laboratory hours, 5 credits

Preparation and propagation of eukaryotic cell lines from primary tissue isolates.

Prerequisite: BIO 352 or equivalent

BIO 742 Cell Physiology

3 lecture hours, 3 laboratory hours, 4 credits

The function of living cells, including examination of membrane composition and biogenesis, membrane transport proteins, electrical properties of membranes, and interaction between cells and extracellular matrix and cell-cell interactions.

Prerequisite: BIO 352 or equivalent

BIO 743 Cellular Toxicology

(Also EIS 743) 4 hours; 4 credits

Toxicology is the overview of the mechanisms by which exogenous agents produce deleterious effects in biological systems. An overview of the sensitive analytical techniques that have facilitated studies on the metabolism and bioaccumulation of xenobiotics and how this contributed to the development of computational and toxicological techniques that will be of use in assessing the action of toxins on a cellular level, emphasis will be placed on the description of representative model cell systems that play an important role in the identification and assessment of potential environmental hazards. A variety of prokaryotic and eukaryotic cell systems are currently in use for the study of different toxic effects including cytotoxicity, genotoxicity, and mutagenesis.

Prerequisites: ODM 256 and BIO 301 and BIO 352 or equivalent

BIO 744 Laboratory Methods in Cell Biology

6 laboratory hours, 5 credits

Use of current cell biology techniques. Techniques include subcellular fractionation, polyacrylamide gel electrophoresis, immunoblot techniques, polymerase chain reaction, and in situ hybridization. Use of confocal laser scanning and electron microscopy will be included.

Prerequisite: BIO 352 or equivalent

BIO 750 Molecular Genetics

5 credits

Use of current molecular genetics techniques. Techniques include inherited traits, recombination, and linkage analysis.
**Business Management (MS)**

**BIO 751 Molecular Genetics**
4 hours; 4 credits
Topics will include nucleic acid and chromosome structure, transcription, translation, protein localization, and regulation of gene expression. DNA replication and repair, biotechnology, signal transduction, regulation of the cell cycle, and oncogenes. Both prokaryotic and eukaryotic systems will be discussed. Prerequisites: BIO 312 or equivalent

**BIO 760 Introduction to Bioinformatics and Genomics**
4 hours; 4 credits
Introduction to the representation and analysis of biological sequence and structural information. Description and use of nucleic acid, proteins, structure, sequence motif, genome, literature, and other relevant databases. Overview and discussion of basic sequence manipulations and analyses including sequence assembly and editing, restriction and protease analysis, coding region identification, gene prediction, database searching and similarity analysis, pairwise and multiple sequence alignment, PCR primer design, phylogenetic analysis, protean structure and property prediction, RNA structure prediction, and microarray analyses. Course format includes lectures and sequence analysis exercises. Prerequisites: BIO 312 or equivalent. Recommended: BIO 370 or equivalent and BIO 751 or equivalent. Not open to students who have taken BIO 326

**BIO 761 Mathematical Models in Biology**
1 lecture hour; 6 laboratory hours; 4 credits
Use of mathematical models in all fields of biology. Differential equations, difference equations, and simulations. Nonlinear dynamics of specific students. **BIO 761 is limited to one advanced course in biology (300 level or above).**

**BIO 771 Principles of Epidemiology**
5 hours; 5 credits
Introduction to principles and methods of epidemiological investigation of both infectious and noninfectious diseases. How studies of the distribution and dynamics of diseases in communities and populations contribute to an understanding of their etiology, mode of transmission, and pathogenesis. Clinical examples of the evaluation of treatment, prevention, costs, and policy implications of disease. Prerequisites: BIO 272 and basic computer knowledge

**BIO 780 Comparative Physiology**
4 hours; 4 credits
Survey of major taxonomic groups to identify diverse solutions to environmental adaptation, of both infectious and noninfectious diseases. How studies of the cellular, molecular, and structural information. Description and use of nucleic acid, proteins, structure, sequence motif, genome, literature, and other relevant databases. Overview and discussion of basic sequence manipulations and analyses including sequence assembly and editing, restriction and protease analysis, coding region identification, gene prediction, database searching and similarity analysis, pairwise and multiple sequence alignment, PCR primer design, phylogenetic analysis, protean structure and property prediction, RNA structure prediction, and microarray analyses. Course format includes lectures and sequence analysis exercises. Prerequisites: BIO 312 or equivalent. Recommended: BIO 370 or equivalent and BIO 751 or equivalent. Not open to students who have taken BIO 326

**BIO 782 Vertebrate Endocrinology**
6 lecture hours; 4 credits
Focus will be on the role of chemical messengers of endocrine and neural origin in the control of vertebrate physiological processes (i.e., growth and regulation of endocrine function). In addition, the cellular source, biosynthesis, chemistry and storage of the messengers, the factors and mechanisms controlling messenger secretion, and the cellular mechanisms of messenger action will be emphasized. Prerequisites: BIO 205, BIO 312, OBM 256 or equivalent

**BIO 783 Environmental and Evolutionary Physiology**
3 hours; 3 credits
Focus on questions in ecological and evolutionary physiology, including examination of specific examples of environmental adaptation, especially to extreme environments. Discussion of methodological approaches and current philosophical debates on identifying adaptation in physiological processes and critiques of primary literature. Prerequisites: BIO 434 or equivalent and BIO 465

**BIO 799 Thesis Research**
Hours and credits vary, maximum six credits with a maximum of three credits in one semester. This course may be repeated. No student may apply more than a total of six credits of Thesis Research toward the degree.

**ESC 601 The Biosphere and Our Species**
3 hours; 3 credits
A required course that covers the structure and function of the biophysical ecosystem on the planet Earth, and the impacts of our species upon its terms of energy, matter use and exploitation, sociopolitical aspects, economics, environmental ethics, and related topics.

**Master of Science in Business Management (MS)**
Program Coordinator: John Sandler
Business Building (3N), Room 238
Telephone: 1.718.982.2921

**The Master’s degree program in Business Management, at CSI is unique in CUNY. It specializes in management decision making and thus is appropriate for both accounting and non-accounting student populations.**

Objectives of the Master’s degree program in Business Management include:
- Graduates will have learned the analytical methods currently used in business and non-profit organizations, planning and implementation processes, and control methods.
- Graduates will have updated and honed their skills in decision making, analysis, and technology.
- Graduates will understand current theories and issues of business ethics, ethical dilemmas, and the role of ethics in decision making.
- Graduates will be familiar with the global marketplace and its implications for business.
- Graduates with a background in accounting will acquire the credentials to sit for the CPA examination.

Admission Requirements
Students may apply for admission to the program for the fall or spring semesters. A graduate Management Steering Committee comprised of the coordinator of the program and deputy area coordinators from accounting, finance, information systems, international business, management, and marketing will determine admissions using the following criteria:

- Successful applicants must have a Baccalaureate degree in Accounting or Business (or related fields such as Corporate Communications and Economics) and an accredited institution and a grade point average of 3.0 higher. Other potential students may apply after taking proficiency courses.
- Those with a Baccalaureate degree in Accounting or Business (or related fields such as Corporate Communications and Economics) and an accredited institution and a grade point average of 3.0 higher. Other potential students may apply after taking proficiency courses.
- They must take the GMAT examination and achieve a minimum score of 550. This score level is consistent with the admissions criteria of business programs worldwide.
- According to the “Graduate Management Admissions Council’s Guide to the use of the GMAT” (2002), an overall score of 540 was the median score of the test taking population for examinees tested from January 1999 through December 2001 (www.testmastergmat.com/gmat/GMATInformation/scale.aspx). Students with degrees in Corporate Communications may obtain the GRE examination.
- Those with a baccalaureate degree from non-English-speaking universities must also take the TOEFL (minimum score of 800 on the paper-based version or 250 on the computer-based version).
- They must supply two letters of recommendation from instructors or employers. One letter, whenever possible, should come from a former or current employer.
- The Steering Committee may request an interview.

**Degree Requirements**
Students in the Master’s degree program in Business Management are required to take 30 credit hours, or ten courses at three credits each, at the graduate level. Most students will have satisfied prerequisites in accounting (2 courses), communications (through a communications course or through business classes with major presentation requirements such as upper-level courses in management and marketing), computer fundamentals (one course equivalent to BUS 150), economics (two courses equivalent to microeconomics and macroeconomics, and quantitative methods (minimum of pre-calculus and statistics) as undergraduates. Those who have not may be permitted to remedially undergraduate prerequisites, but courses taken to remove the deficiencies must be in addition to their regular coursework. With prerequisites satisfied, all students are required to take four core courses:

- MGT 600 The Administrative Process
- MGT 605 Business Organization and Society
- FNC 600 Financial Management
- MGT 700 Strategic Marketing Management

These courses, as well as later courses, may involve case studies, computer simulations, formal presentations and projects, and exploring the Internet. Once these core courses have been completed, students are required to take four more advanced courses.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MGT 710</td>
<td>Leadership and Organizational Effectiveness</td>
</tr>
<tr>
<td>MGT 720</td>
<td>Global Business Strategy</td>
</tr>
<tr>
<td>MGT 730</td>
<td>Strategic Human Resource Management</td>
</tr>
<tr>
<td>MGT 770</td>
<td>Managerial Decision Making and Applications</td>
</tr>
</tbody>
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The capstone course, Managerial Decision Making and Applications, involves a comprehensive and integrative approach to managing an organization over time through computer simulation. There is a significant quantitative and financial aspect to the course complemented by a qualitative analysis of business policy and strategy over time. While not a thesis per se, a significant written assignment is required at the culmination of the course in addition to smaller papers during the term. The capstone course is comparable to those offered at many business schools worldwide. It is a rigorous experience designed to bolster the program’s intent of training decision makers.

In addition, students will elect two courses from a group of seven.

- ACG 700 Accounting/Management Information Systems
- ACG 740 Tax Strategies and Business Decisions
- FNC 740 Financial Statement Analysis
- FNC 740 Financial Planning
- MGT 780 Services Marketing and Management
- MKT 740 Business-to-Business Marketing
- MKT 790 Seminar in Contemporary Business Topics

Business Management (MS)
Courses

ACC 600 Introduction to Financial and Managerial Accounting
3 hours; 3 credits
This course prepares students to work with financial statements and other accounting information. Topics include introduction to the accounting system, understanding how key accounting alternatives can influence interpretation of financial information, and identification and analysis of key factors. Coverage of managerial accounting includes analysis of variable and fixed costs, period costs, product costs, investment decisions, and budget preparation.

ACC 750 Accounting/Management Information Systems
3 hours; 3 credits
This course covers requirements of corporate accounting for managerial and external use and the design method standards to satisfy these needs. The integration of accounting information system with corporate operational systems and with the systems of vendors and customers is a major focus. Other topics include integrity, security, and accuracy of the information processed.

Prerequisite: ACC 600 or undergraduate credits in accounting

ACC 740 Tax Strategies and Business Decisions
3 hours; 5 credits
This course examines timely topics in tax at an advanced level. Particular emphasis is placed on tax strategy and planning, as well as compliance and procedural considerations. Students will be required to read scholarly articles and official pronouncements on current issues and developments. Research papers and oral presentations on timely topics are required.

Prerequisite: ACC 600 or undergraduate credits in accounting

FNC 600 Financial Management
3 hours; 3 credits
Topics presented in this course include an examination of analytical issues that surround long-term and short-term financing, financial ratio analysis, current asset management, capital budgeting, present value concepts, the cost of capital, mergers/acquisitions, and new ventures. Material related to for-profit, not-for-profit, and global environments is presented.

FNC 750 Financial Statement Analysis
3 hours; 3 credits
Income statements, balance sheets, and statements of cash flows will be studied at the point of view of financial managers. Ratio analysis, such as profitability, liquidity, debt, asset utilization, and market value ratios will be discussed. Cross-sectional and time-series analysis of financial metrics will be examined. The focus of this course will not be the construction of financial statements; instead, we will try to understand the value of a firm.

Prerequisites: FNC 600, ACC 600 or undergraduate credits in accounting

FNC 740 Financial Planning
3 hours; 3 credits
This course will cover topics in budgeting, investments, income tax planning, insurance, retirement planning, and estate tax and trusts from the perspective of the individual.

Prerequisite: FNC 660

MGT 600 The Administrative Process
3 hours; 3 credits
This course introduces students to the key issues involved in the management of organizations. Major topics include the nature of management and the skills required for success, the organization's internal and external environment, organizational ethics, and the functions of managers (planning, organizing, leading, motivating, and controlling).

MGT 605 Business, Government, and Society
3 hours; 3 credits
This course proposes to (1) examine the roles and responsibilities of business in today's complex global economy, including the interests of various stakeholders; explores social, legislative, regulatory, and judicial processes as expressed in public policy and the options open to business management in anticipating and responding to these forces; (2) integrate concepts of ethical behavior with corporate responsibility; and (3) examine managerial values and corporate culture and the resulting corporate governance as driving forces in the modern business organization. Particular focus will be directed at differences in corporate business as compared to international corporations.

Prerequisite: Instructor permission

MGT 790 Seminar in Contemporary Business Topics
3 hours; 5 credits
This course examines timely topics in business. Topics will rotate by semester and may focus on information systems, marketing, research, venture capital and business valuation, and advanced accounting issues. For example, opportunities for individual research are integral to the course.

Prerequisite: Instructor permission

MKT 600 Strategic Marketing Management
3 hours; 3 credits
This course is designed to expose graduate students to key aspects of the marketing function in for-profit and non-profit organizations. All elements of the marketing mix, including product decisions, pricing, distribution, and communication are discussed. Students are introduced to marketing theories and concepts, encouraged to develop analytical and decision making skills, and provided the opportunity to execute managerial actions in varied market settings. The applied course format requires the student to utilize and communicate marketing concepts through case analyses.

MKT 740 Business-to-Business Marketing
3 hours; 3 credits
This course applies marketing and management principles to the unique requirements of service industries (financial, legal, accounting, medical, etc.). The special role of the marketer, service provider, and customer in the process of creating and delivering value are considered. Emphasis is given to the utility of the Internet for identifying prospects, delivering services, enhancing value, and strengthening relational bonds. The course employs test readings, case analysis, and other exercises to build key themes.

Prerequisite: MKT 600

MKT 750 Business-to-Business Marketing
3 hours; 3 credits
This course explores the differences between business and consumer marketing. It examines businesses/institutional buyer behavior and marketing strategy, including market research, product planning, pricing, promotion, and management of the sales force. Extensive use of the Internet is required for case studies and other assignments.

Prerequisite: MKT 600

MKT 730 Strategic Resource Management
3 hours; 3 credits
The course addresses the functions of a human resource manager, with emphasis placed upon the technical, analytical, and legal skills required for effective job performance. Special topics include: recruiting, selecting, training and development, performance appraisal, components of compensation, and compliance with legal mandates.

Prerequisites: MKT 600, MKT 605

MKT 770 Managerial Decision Making and Applications
3 hours; 5 credits
This capstone course requires the application of all business education. It is an integrative course that places students in the role of top/middle management facing the myriad decisions involved with running a business. The heart of the course is participation in a computer-based business simulation. The emphasis is on team interpersonal dynamics, use of financial statements, and decision making skills in business situations that involve the organization as a whole.

Prerequisites: MKT 600, MKT 605, MKT 600, ENG 600, MKT 710, MKT 720

MKT 790 Seminar in Contemporary Business Topics
3 hours; 5 credits
This course examines timely topics in business. Topics will rotate by semester and may focus on information systems, marketing, research, venture capital and business valuation, and advanced accounting issues. For example, opportunities for individual research are integral to the course.

Prerequisite: Instructor permission

MKT 600 Strategic Marketing Management
3 hours; 5 credits
This course is designed to expose graduate students to key aspects of the marketing function in for-profit and non-profit organizations. All elements of the marketing mix, including product decisions, pricing, distribution, and communication are discussed. Students are introduced to marketing theories and concepts, encouraged to develop analytical and decision making skills, and provided the opportunity to execute managerial actions in varied market settings. The applied course format requires the student to utilize and communicate marketing concepts through case analyses.

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This course applies marketing and management principles to the unique requirements of service industries (financial, legal, accounting, medical, etc.). The special role of the marketer, service provider, and customer in the process of creating and delivering value are considered. Emphasis is given to the utility of the Internet for identifying prospects, delivering services, enhancing value, and strengthening relational bonds. The course employs test readings, case analysis, and other exercises to build key themes.

Prerequisite: MKT 600

MKT 750 Business-to-Business Marketing
3 hours; 3 credits
This course explores the differences between business and consumer marketing. It examines businesses/institutional buyer behavior and marketing strategy, including market research, product planning, pricing, promotion, and management of the sales force. Extensive use of the Internet is required for case studies and other assignments.

Prerequisite: MKT 600

Master of Arts in Cinema and Media Studies (MA)

Program Coordinator: Assistant Professor Matthew Solomon
Center for the Arts (U7), Room 226
Email: cinemamasters@mail.csi.cuny.edu
Telephone: 718.982.2541 or 718.982.2541 (see section Graduate Courses in Selected Disciplines for cinema and media studies courses for teachers.)

The MA in Cinema and Media Studies offers an intensive study in film and media history, theory, research, and methodology. The program provides a strong foundation for those students who wish to pursue doctoral or other advanced studies in film and other media disciplines.

In addition, the program offers post-undergraduate students the opportunity to enrich and advance their careers in media and communications industries. Courses emphasize the study of films and media as a set of discursive and interdisciplinary practices, as signifying systems, as sets of strategies that evoke certain responses within particular interpretive communities, as a set of economic and social institutions, and as powerful ideological devices for expressing and suppressing selective aspects of national identity or race or gender. Students work closely with faculty to develop strong analytical skills to complete a written or media production thesis. For college's locations enable students to pursue extensive research and internships in New York City's archives, theaters, museums, galleries, and libraries. For those students completing a media production thesis, the college houses a film and video workshop, digital media lab, and television studio with close faculty advisement.

Admission Requirements

Applicants to the program are expected to have the Bachelor of Arts or Bachelor of Science degree in a liberal arts and sciences major and to have completed with a B average the undergraduate courses required for the BA in Cinema Studies or Bachelor of Science in Communications at the College of Staten Island, or their equivalent. Applicants must also submit a one-page statement of intent detailing interest in the field, background in film and media studies, and/or research interests; a GRE exam report (CSI number is 13619); a ten- to 12-page writing sample (a short critical essay on a film topic or other related media); and three letters of recommendation.

Students transferring from other majors or other colleges will be permitted to remedy undergraduate deficiencies while working toward the MA, but courses taken to remove the deficiencies must be in addition to the core courses for the MA, and at a minimum they must include either CIN 100 Introduction to Film or COM 190 Introduction to Communications.

Priority deadlines for receipt of applications for admission are April 15 for the fall semester and November 15 for the spring semester.

Degree Requirements

36 credits in graduate cinema and media studies courses that must include the following core requirements*: CMU 700 History of Media CMU 795 Film and Media Research Analysis CMU 710 Studies in Film and Media Theory

All remaining credits are to be fulfilled, following advisement, through a minor elected to maintain a 3.7 GPA or higher or directed by the instructor and program coordinator.

Note: Students who choose to complete a written or production thesis must apply to the departmental graduate studies committee for approval. Please see Options A and B below for thesis procedures and guidelines.

Note on production courses: A maximum of nine credits in film or media production must be counted toward the degree, with the approval of the candidate's graduate adviser. Graduate independent study in film production is only granted with permission of the instructor and program coordinator.

Note: Students who choose Option B should maintain a 3.7 GPA or higher Satisfactory completion of one of the following three options:

1. The MA in Film and Media Studies offers an intensive study in film and media history, theory, research, and methodology. The program provides a strong foundation for those students who wish to pursue doctoral or other advanced studies in film and other media disciplines.

2. The MA in Cinema and Media Studies offers an intensive study in film and media history, theory, research, and methodology. The program provides a strong foundation for those students who wish to pursue doctoral or other advanced studies in film and other media disciplines.

3. The MA in Communication and Media Studies offers an intensive study in film and media history, theory, research, and methodology. The program provides a strong foundation for those students who wish to pursue doctoral or other advanced studies in film and other media disciplines.
Option A: Written Thesis

(1) A film or video production thesis, whether undertaken in the
(2) A candidate must submit a comprehensive thesis proposal to the
(3) If approved, each candidate must choose a thesis committee composed of three members of the full-time faculty of the
(4) A copy of the completed thesis is submitted to each member of the thesis committee. Successful completion of the thesis
(5) The questions on the examination will take into account the

Option B: Original Film or Media Production Thesis

(1) A film or video production thesis, whether undertaken in the
(2) The candidate must submit a comprehensive thesis proposal to the
(3) If approved, each candidate must choose a thesis committee composed of three members of the full-time faculty of the
(4) A copy of the completed thesis is submitted to each member of the thesis committee. Successful completion of the thesis

Production Thesis Guidelines:

(1) A film or video production thesis, whether undertaken in the
(2) The candidate must submit a comprehensive thesis proposal to the
(3) If approved, each candidate must choose a thesis committee composed of three members of the full-time faculty of the
(4) A copy of the completed thesis is submitted to each member of the thesis committee. Successful completion of the thesis

Maintenance of Candidacy

To maintain candidacy for the MA degree, full-time students must maintain a B (3.0) average in each 12-credit semester. Part-time students must maintain a B average in each successive 12-credit sequence of courses taken.

Note: All candidates should be aware that they must pay the maintenance of matriculation fee for any semester in which they are not enrolled, unless they are not using College facilities (including, the Library and screening facilities) during this period. In this case, they may pay the registration fee and the maintenance fee for the semester in which they are graduating. If the candidate has not paid for each semester, the maintenance and maintenance fee for one semester may be paid, provided that the candidate has not used the College facilities and that the request is supported by a written statement from the committee chair.

Courses

CJC 700 History of Media

The class provides students with a comprehensive history of media practices and debates in media studies. Students are introduced to the relationships linking social and economic history, the development of new media technologies, forms of “texts,” and the dissemination and impacts of mass media. This course, as well, examines the history of the field of media studies, allowing students to think about their future research in the MA thesis.

CMC 705 Film and Media Research Analysis

This seminar introduces the terms and techniques of contemporary media arts production and analysis. Students are encouraged to write criticisms about contemporary activity in the field or produce a media-based work (with permission of instructor). Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor.

CJC 710 Studies in Film and Media Theory

This course considers theories of media and film in relationship to issues of social, institutional, and cultural production. This course may be repeated for credit, see Degree Requirements.

CJC 711 Film and Video Workshop

4 hours; 4 credits

Research and production of thesis-level films and videos, especially for students pursuing the production thesis option.

Prerequisite: Matriculation in the graduate Cinema and Media Studies program and permission of instructor.

CJC 712 Non-Linear and Multimedia Production

4 hours; 4 credits

Intensive study of the techniques and aesthetics in contemporary media technologies. Students are encouraged to develop their own thesis-level projects and to apply the technologies covered directly to their own creative work. The course also examines the contemporary artistic field, especially through the effect of evolving technologies on distinct genres such as documentary, personal essay, and fine-art approaches to film, video, and multimedia.

Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of the instructor.

CJC 713 Studies in Authorship

4 hours; 4 credits

Intensive study of the works of one or more media author(s), with attention to theories of media authorship. This course may be repeated for credit; see Degree Requirements.

Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor.

CJC 725 Contemporary Media Practices

4 hours; 4 credits

This seminar introduces the terms and techniques of contemporary media arts production and analysis. Students are encouraged to write criticisms about contemporary activity in the field or produce a media-based work (with permission of instructor).

Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor.

CJC 731 Studies in International Cinema

4 hours; 4 credits

This course provides an overview of methodological research practices for film and the other media arts. Research skills and tools are developed in order to prepare for the master’s written thesis, media production thesis, or for the examination.

Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor; required of all matriculated candidates for the MA degree in Cinema and Media Studies.

Prerequisites: Matriculation in the graduate Cinema and Media Studies program or permission of instructor.

CJC 734 Experimental Film and Video

4 hours; 4 credits

The history and theory of alternative visions expressed in the cinema, single-channel videos, and digital domains. A range of historical material and theoretical issues is considered, from the visual and counter-narrative experiments of avant-garde film to video’s deployment as both a formal medium and critical outlet.

Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor.
CMC 742 Studies in Media Genres
4 hours; 4 credits
Historical, theoretical, and critical studies of major program formats across various media (films and television genres, book and magazine genres, musical genres, etc.). This course may be repeated for credit; see Degree Requirements.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 743 Nonfiction Media
4 hours; 4 credits
This course explores the various issues of media and ideology involving media texts, audiences, fields of production, and institutions.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 744 Media and Ideology
4 hours; 4 credits
Vary, 1-8 credits
This course provides a framework to discuss media as a dominant form of communication. The course is designed to enhance the capability of students to do independent work in the field. Courses to meet the remaining requirements are chosen in consultation with a graduate program adviser to create a program that meets the needs of the individual student.

CMC 745 Global Media
4 hours; 4 credits
This course examines contemporary media as global phenomena, stressing the multidirectionality of media flow, influence, power, and practices.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 746 Cinema and Gender
4 hours; 4 credits
Intensive study of the representation and spectator position of gender in relationship to the cinema. There will also be an emphasis on the works of film by those groups and genres not traditionally categorized with dominant forms of filmmaking. Students will become acquainted with the traditions of feminist and gender theory as it has informed critical film studies.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 749 Interdisciplinary Media Arts
4 hours; 4 credits
This course provides a forum to discuss media in an interdisciplinarian model and through the filter of one or more alternative scholarly disciplines. The scope of the course includes, but is not exclusive to, painting, literature, dance, historical period studies.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 799 Thesis Research
Varies, 0.5-8 credits
This course may be repeated. No student may apply for more than a total of eight credits of Thesis Research toward the degree. Please see Options A and B for details.

Master of Science in Computer Science (MS)
Program Coordinator: Associate Professor Yoram Tauber
Computer Science/Engineering Science and Physics Building (1N), Room 201
Email: compsci@csi.cuny.edu
Telephone: 1.718.982.2945
www.cs.csi.cuny.edu/grad

This course may be repeated for credit; see Degree Requirements.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 742 Studies in Media Genres
4 hours; 4 credits
Historical, theoretical, and critical studies of major program formats across various media (films and television genres, book and magazine genres, musical genres, etc.). This course may be repeated for credit; see Degree Requirements.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 743 Nonfiction Media
4 hours; 4 credits
This course explores the various issues of media and ideology involving media texts, audiences, fields of production, and institutions.
Prerequisite: Matriculation in the graduate Cinema and Media Studies program or permission of instructor

CMC 744 Media and Ideology
4 hours; 4 credits
Vary, 1-8 credits
This course provides a framework to discuss media as a dominant form of communication. The course is designed to enhance the capability of students to do independent work in the field. Courses to meet the remaining requirements are chosen in consultation with a graduate program adviser to create a program that meets the needs of the individual student.

Admission Requirements
1. A Bachelor of Science degree in Computer Science or related area with a B average (3.0 out of 4.0) overall and in the major
2. Graduate Record Examination
3. Demonstrable Knowledge of:
   a. High-Level Language
   b. Assembly Language
   c. Discrete Mathematics
   d. Information Structures
   e. Object-Oriented Software Design
   f. Switching Theory
   g. Calculus
   h. Probability
   i. Linear Algebra
   j. or their equivalents. (See the CMC Undergraduate Catalog for descriptions of these courses.)
4. Students transferring from other related majors or entering from other colleges will be permitted to remedy upper-level undergraduate course deficiencies by taking any missing undergraduate coursework (e.g., CSC 220, CSC 326, CSC 335, or CSC 540) as non-matriculated graduate students. No more than nine graduate credits may be completed before these deficiencies have been remedied; however, courses taken to remove deficiencies must be in addition to the regular coursework for the MS degree.

Degree Requirements
Matriculated status
2. A program of 12 courses (36 credits) with at least a 3.0 (B) average. The following core courses are required of all students:

   CSC 718 Operating Systems Design
   CSC 722 Computability
   CSC 724 Formal Language Theory
   CSC 727 Algorithms and Information Structures
   CSC 740 Computer Systems Design
   CSC 755 Applied Mathematics for Computer Science

   The remaining six courses will be chosen from courses listed below under specialization areas, with a maximum of three courses from any one specialization area.

Specialization Areas
Certain specialization areas within computer science are well represented by the department faculty research interests. Students interested in specializing in any of these areas are recommended to take the listed courses. For additional CMC Graduate Center courses in a specialization area, consult the graduate program coordinator.

Software Engineering
CSC 710 Software Engineering
CSC 712 Compiler Construction
CSC 713 Advanced Systems Programming
CSC 714 Software Systems Analysis and Design
CSC 715 Database Theory
CSC 742 Advanced Compiler Systems Design
CSC 752 Management Information Systems
CSC 766 Broadband and SONET Networks

Courses
CSC 705 Advanced Microcomputer Systems Design
3 hours, 3 credits
Introduction to microcomputer development systems, simultaneous hardware and software development. In-circuit emulation for debugging hardware and software. Interfacing details. Interrupt handling. Laboratory work in the design and implementation of actual systems.
Prerequisites: CSC 460 and 461 or equivalent
CSC 706 Computer Graphics
3 hours, 3 credits
CSC 710 Software Engineering
3 hours, 3 credits
Developing large-scale reliable software systems. Modeling tools and techniques. Performance analysis and tradeoffs, debugging techniques. Documentation, testing, and management of software. Study and practical application of principles of good program development. A significant project will be required.
CSC 712 Compiler Construction
3 hours, 3 credits
The grammars of programming languages: lexical analyzers, parsers, code emitters, and interpreters. Software composition, run-time support; error management, translator, writing systems.
Prerequisite: CSC 727
CSC 713 Advanced Systems Programming
3 hours, 3 credits
System and program design for advanced software and hardware architectures. Pre- and post-analysis of system implementations. Topics may include von Neumann architectures.
CSC 714 Software Systems Analysis Design
3 hours, 3 credits
CSC 715 Database Theory
3 hours, 3 credits
In-depth review of database systems and extensive survey of the current literature on the topic.
CSC 718 Operating Systems Design
3 hours; 3 credits
Processors and concurrent programming, memory management, I/O and file systems, scheduling, protection, user interfaces, and distributed system issues.

CSC 722 Computability
3 hours; 3 credits

CSC 724 Formal Language Theory
3 hours; 5 credits
Classification of languages by grammars and automata. The Chomsky hierarchy: regular, context-free, context-sensitive, and recursively enumerable languages. Definition of their associated grammars and automata. Closure properties for families of languages. Decision problems for grammars and automata.

CSC 727 Algorithms and Information Structures
3 hours; 5 credits

CSC 731 Artificial Intelligence and Knowledge Engineering
3 hours; 3 credits

CSC 742 Advanced Microcomputer Systems Design
3 hours; 3 credits
Introduction to microcomputer development systems, simultaneous hardware and software development. In-circuit emulation for debugging hardware and software. Interfacing details. Interrupt handling. Laboratory work in the design and implementation of actual systems.

CSC 744 Computer Performance Evaluation
3 hours; 3 credits
The system life cycle model and its impact on computer performance and capacity planning. Topics include load drivers and buffer management; simulation and analytic queueing models, statistical methods, workload characterization, software and hardware monitors, performance triggering, bottleneck identification, local service, and capacity relationships.

CSC 747 Digital Signal Processing
3 hours; 5 credits

CSC 750 Machine Learning and Data Mining
3 hours; 3 credits
An advanced course in computer architecture covering a variety of classical computer architecture topics with heavy emphasis on the quantitative approach to analyzing computer architecture and evaluating design tradeoffs.

CSC 750 Computer-aided Analysis and Design
3 hours; 3 credits

CSC 752 Management Information Systems
3 hours; 3 credits
The role of computers in management information systems. Analysis of information requirements, design approaches, processing methods, data management control of operations. Planning and control systems, analytical and simulation models of decision making. Economies of information, implementation of integrated systems, organizational social implications of information technology.

CSC 754 Topics in System Simulation
3 hours; 3 credits
Techniques for the simulation of complex systems; simulation of computer systems. Statistical issues in simulation. Simulation methodology. Survey of simulation languages.

CSC 755 Applied Mathematics for Computer Science
3 hours; 3 credits
Selected topics in mathematics and mathematical systems areas that are essential to advanced studies in computer science. Topics are drawn from probability, statistics, queueing theory, numerical analysis, universal algebra, mathematical logic, general systems theory, and cybernetics.

CSC 756 Network Security
3 hours; 3 credits

CSC 757 Telecommunication Networks
3 hours; 3 credits

CSC 758 Media Transmission and Characteristics
2 hours lecture and one hour conference; 3 credits
Basic requirements of transmission media, fiber-optic medium, typical attenuation and dispersion characteristics, and measurement of the fiber medium. The copper medium, twisted pair, coaxial medium, and similar media transmission systems, role of fiber and coaxial system, characterization, and limitations.

CSC 759 Graduate Research Laboratory
3 hours; 3 credits
Students will choose a research topic in Computer Science and select two journal papers on the topic: the articles must be approved by the instructor. Students will write a seminar paper explaining and reviewing the research reported on from the journal papers and present the research topic to the entire seminar. All students will be required to write a short summary of each presentation.

CSC 760 High-speed LAN and WAN
3 hours; 3 credits
LAN topologies and access methods, medium access protocols, high-speed LANs, wireless LANs, analysis and efficiency of LAN protocols. Protocol bases, error control methods, flow control, VLAN, circuit and packet-switching, routing, congestion control, Internet protocols.

CSC 762 Fundamentals of Wireless Communications
(Also EN 762)
3 hours; 3 credits
Cellular and personal communication services, standards, spectrum services. Mobile computer Wireless local area networks, local loops, and digital networks. Analog wireless communication systems. North American internetwork operations, time division multiple access, code division multiple access, channel structure, power control, handoff. Global systems mobile: Third- and fourth-generation wireless.

CSC 764 Intelligent Networks
(Also EN 764)
3 hours; 3 credits

CSC 766 Broadband and SONET Networks
(Also EN 766)
3 hours; 1 credit
Consideration of the principles, concepts, protocols, and interfaces for most broadband networks around the globe: principles and concepts are stressed and protocol and interfaces are discussed. The evolution of the broadband ISDN and SONET.

Courses offered at the CUNY Graduate School and University Center may be repeated for credit.

Computer Science (MS)
Master of Science in Childhood Education (MSEd)

Program Coordinator: Sequence 1, Professor Igor Arestich
Education Building (SS), Room 215; telephone: 1 718.982.4006
Email: arestich@mail.csi.cuny.edu

Program Coordinator for Sequence II, Associate Professor Greg Soehl
Education Building (SS), Room 217; telephone: 1 718.982.3745
Email: soehl@mail.csi.cuny.edu

The program will foster and enhance students’ competence in teaching, understanding of current educational research and theory, and knowledge in selected areas of the liberal arts and sciences. It is designed to serve dual functions through two distinct instructional sequences:

Sequence 1: This sequence is designed for those who have completed the course requirements for initial certification in childhood education from the New York State Department of Education. Upon satisfactory completion of the program, students will have met the academic requirements for professional certification in childhood education.

Sequence 2: This sequence is designed for college graduates who have not completed programs leading to initial certification in childhood education and wish to become elementary teachers. Upon satisfactory completion of the program, students will have met the academic requirements for initial certification in childhood education.

Admission Requirements

For Sequence 1, candidates must have completed the coursework leading to a New York State initial certificate in childhood education. A copy of the certificate must be submitted to the program when it is granted by the New York State Education Department. Candidates must also possess a baccalaureate degree in a liberal arts and sciences major, or 36 credits in a liberal arts and sciences concentration, at least six credits each in English, history, mathematics, and science, and an overall grade point average (GPA) of at least 2.75. For Sequence 2, candidates must possess a baccalaureate degree in a liberal arts and sciences major, or 36 approved credits in a liberal arts and sciences concentration, at least six approved credits each in English, history, mathematics, and science, and an overall grade point average (GPA) of at least 2.75.

For both sequences, applicants whose GPAs fall below the respective minimums may submit a letter of appeal to the appropriate program coordinator; however, such appeals will be granted only under extraordinary circumstances. Applicants appealing for admission must present documentation demonstrating their ability to succeed in the program and may be required to take up to 24 credits in undergraduate liberal arts and science courses, as prescribed by the program coordinator, in which they must earn grades no lower than 2.75 (B-).

Applications for Sequences 1 and 2 are accepted for fall and spring semesters. All applications must include two academic or professional letters of recommendation and a one- or two-page personal statement that discusses the academic, teaching, and/or work experiences that have led and prepared the applicant to pursue graduate study in education.

Degree Requirements

Sequence 1 consists of a minimum of 32-34 graduate credits. Sequence 2 consists of a minimum of 45-49 graduate credits. In both sequences, students are required to complete an acceptable educational research project, which is carried out under faculty supervision in EDU 651 Research Seminar II.

Credit Distribution for Sequence 1 (33-34 credits)

<table>
<thead>
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<tbody>
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<td>3</td>
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<td>EDD 627/628 Teaching Students with Special Needs</td>
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<td>EDS 623 Developmental Psychology: Childhood</td>
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<td>EDS 624 Multiethnic Approaches to Teaching</td>
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<td>EDS 626 Philosophy and Children</td>
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<td>EDS 627 Educational Seminar I</td>
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<td>EDS 628 Educational Seminar II</td>
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Grading for Sequence 1: Inquiry in Education 6 credits

Credit Distribution for Sequence 2 (45-49 credits)

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</tbody>
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Grading for Sequence 2: Inquiry in Education 6 credits
Education (MSEd)

Group B:

EDC 600  Contemporary Curriculum in Early Childhood Education, Grades K-2
EDD 620  The Teacher and Curriculum Improvement
EDD 641  New Media of Instruction
EDD 650  Advanced Social Studies Education
EDD 655  Advanced Science Education, Grades 3-6
EDD 655  Advanced Science Education, Grades 1-2
EDD 661  Musical Movement in Childhood Education
EDD 682  Advanced Art

3. Field-Based Courses: One of the following alternatives: 3-6 credits

- EDE 609  Teaching Practicum I (2 credits)
- EDE 610  Teaching Practicum II (1 credit)
- EDE 610  Student Teaching (6 credits)

4. Capstone Sequence: Inquiry in Education 6 credits

Both of the following:
- EDE 630  Educational Seminar I
- EDE 631  Educational Seminar II

The following are considered courses in English language arts: EDA 600, EDD 609, EDD 651, EDD 652. The following are considered courses in mathematics: EDD 627/MTH 627, EDE 640, EDE 601, EDC 600, EDE 650, EDE 651, EDE 652. The following are considered courses in social studies: EDD 620, EDD 620/BST 626, EDD 618, EDD 628, EDD 620, POL 636, POL 737.

Master of Science in Special Education

Education Building (3S), Room 226; telephone: 1.718.982.3742

Email: gold@mail.csi.cuny.edu

Program Coordinator for Sequences I and II: Associate Professor Effie Simmonds

Master of Science in Special Education

Education (MSEd)

Program Coordinator for Sequences I and II: Associate Professor Effie Simmonds

Admission Requirements

For Sequence 1, candidates must have completed the courses required for the New York State initial certificate to teach in their area of specialization at the secondary (adolescence) level. A copy of the certificate must be submitted to the College. Candidates must also possess the baccalaureate degree in an appropriate major with a grade point average (GPA) of at least 2.7.

For Sequence 2, candidates must possess the baccalaureate degree in an appropriate major, or 32 approved academic credits in an appropriate subject area, and an overall grade point average (GPA) of at least 2.7.

For both sequences, applicants whose GPAs fall below the required minimums may appeal to the appropriate Program coordinator; however, such appeals will be granted only under extraordinary circumstances. Applicants appealing for admission must present documentation demonstrating their ability to succeed in the program and may be required to take up to 24 credits in undergraduate liberal arts and science courses, as prescribed by the program coordinator, in which they must earn grades no lower than a "B." Applications for Sequences 1 and 2 are accepted for fall and spring semesters. All applications must include two academic or professional letters of recommendation and a one- or two-page personal statement that discusses the academic, teaching, and/or work experiences that have led and prepared the applicant to pursue graduate study in education.

Degree Requirements

Sequence 1 consists of a minimum of 33-38 graduate credits distributed among 11 courses in the categories listed below. Sequence 2 consists of a minimum of 45-52 graduate credits in the categories listed below. In both sequences, students are required to complete an acceptable educational research project, which is carried out under faculty supervision in the course EED 631 Educational Seminar II.

Credit Distribution for Sequence 1 (33-39 credits)

1. Required Areas of Study 27-32 credits
   - Educational Psychology: One course from the following:
     - EDD 611  Advanced Educational Psychology
   - Developmental Psychology: Adolescence
   - Social Foundations of Education: One course from the following:
     - EDD 606  History of Urban Education in the United States
   - EDE 615  Comparative and International Education
   - EDE 624  Multicultural Approaches to Teaching
   - EDE 641  Sociology of Schools
   - Education of Students with Special Needs:
     - EDP 680  Teaching Students with Special Needs in the General Education Classroom
   - Disciplines and Pedagogy: Six courses
     - One course from the following:
       - EED 691  Advanced Studies in Teaching, Secondary School Social Studies
       - EED 692  Advanced Studies in Teaching, Secondary School English
       - EED 693  Advanced Studies in Teaching, Secondary School Mathematics
       - One elective course in liberal arts and sciences or in education

In addition, within their area of specialization, students must take the following in Mathematics or biology: Four courses in area of specialization

- English or social studies: EDS Reading in the Content Areas and three courses in area of specialization

2. Capstone Sequence: Inquiry in Education 6 credits
   - Both of the following:
     - EDE 630  Educational Seminar I
     - EDE 631  Educational Seminar II

Credit Distribution for Sequence 2 (45-53 credits)

1. Core Courses 12 credits

- EED 602  Studies in Urban and Metropolitan Education
- EED 610  Adolescent Development and Learning
- EDS 607  Integrating Curriculum and Learning through Discovery

2. Advanced Courses 24-28 credits

- EDE 601  Teaching and Learning Secondary School Social Studies
- EDE 602  Teaching and Learning Secondary School English
- EDE 603  Teaching and Learning Secondary School Mathematics
- EDE 604  Teaching and Learning Secondary School Science

3. Field-based Courses: One of the following alternatives: 3-6 credits

- EDS 691  Advanced Studies in Teaching, Secondary School Social Studies
- EDS 692  Advanced Studies in Teaching, Secondary School English
- EDS 693  Advanced Studies in Teaching, Secondary School Mathematics
- EDS 694  Advanced Studies in Teaching, Secondary School Science

4. Capstone Sequence: Inquiry in Education 6 credits

- Both of the following:
  - EDE 630  Educational Seminar I
  - EDE 631  Educational Seminar II

Master of Science in Special Education

Education Building (3S), Room 226; telephone: 1.718.982.3742

Email: simmonds@mail.csi.cuny.edu

The program prepares students to teach students with disabilities in childhood. It is designed to serve dual functions through two distinct instructional sequences:

Sequence 1: This sequence is designed for those who have completed the course requirements for initial certification in childhood education from the New York State Department of Education. Upon satisfactory completion of the program, students will have met the academic requirements for professional certification in special education at the childhood level.

Sequence 2: This sequence is designed for college graduates who have not completed the course requirements for initial certification in childhood education. Upon satisfactory completion of the program, students will have met the academic requirements for initial certification in teaching students with disabilities in childhood.

Admission Requirements

For Sequence 1, candidates must have completed the courses required for a New York State initial certificate in childhood education. Official transcripts and a copy of the certificate must be submitted when it is received from the New York State Department of Education. Candidates must also have a baccalaureate degree in a liberal arts and sciences major or 36 credits in a liberal arts and sciences concentration, and an overall grade point average (GPA) of at least 3.0 (B).

For Sequence 2, candidates must have a baccalaureate degree in a liberal arts and sciences major or 36 approved credits in a liberal arts and sciences concentration, at least six credits each in English, history, mathematics, and science; one year of college-level foreign language or the equivalent; and an overall grade point average (GPA) of at least 3.0 (B).

For both sequences, candidates whose GPAs are below 3.0 but above 2.5 may submit a letter of appeal to the program coordinator; however, such appeals will be granted only under extraordinary circumstances. Candidates appealing for admission must present documentation demonstrating their ability to succeed in the program and may be required to take up to 24 credits in undergraduate liberal arts and sciences courses, as prescribed by the program coordinator, in which they must earn grades no lower than a "B."
Applications for both sequences are accepted for the fall and spring semesters. All applications must include two academic or professional letters of recommendation and a one- or two-page personal statement that discusses the academic, teaching, and/or work experiences that have led and prepared the applicant to pursue graduate study in education.

Degree Requirements
Sequence 1 consists of ten three-credit required courses and one elective for a total of 11 courses (33 credits). Sequence 2 consists of four three-credit required courses and a three- to six-credit, field-based requirement for a total of 45-48 credits. Several of the courses have fieldwork requirements. As a culminating experience, all students complete an original research paper in EDP 642 Research Project in Special Education.

Credit Distribution for Sequence 1 (35 credits)
1. Required Education Courses 18 credits
   EDP 600 Psychology of Exceptional Children
   EDP 611 Social Foundations of Special Education
   EDP 621 Teaching English Language Arts and Social Studies in Special Education and Inclusive Classrooms
   EDP 622 Classroom Management in Special Education and Inclusive Classrooms
   EDP 624 Reading, Assessment and Instruction in Special Education and Inclusive Classrooms
   EDP 626 Principles of Assessment in Special Education
   EDP 640 Fundamentals of Educational Research in Special Education
   EDP 642 Research Project in Special Education
   EDP 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

2. Advanced Courses 24 credits
   All of the following:
   EDP 612 Foundations of Special Education
   EDP 621 Teaching English Language Arts and Social Studies in Special Education and Inclusive Classrooms
   EDP 622 Classroom Management in Special Education and Inclusive Classrooms
   EDP 626 Principles of Assessment in Special Education
   EDP 640 Fundamentals of Educational Research in Special Education
   EDP 642 Research Project in Special Education
   EDP 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

Degree Requirements
Sequence 1 consists of ten three-credit required courses and one elective for a total of 11 courses (33 credits). Sequence 2 consists of four three-credit required courses and a three- to six-credit, field-based requirement for a total of 45-48 credits. Several of the courses have fieldwork requirements. As a culminating experience, all students complete an original research paper in EDP 642 Research Project in Special Education.

Credit Distribution for Sequence 1 (35 credits)
1. Required Education Courses 18 credits
   EDP 600 Psychology of Exceptional Children
   EDP 611 Social Foundations of Special Education
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   EDP 640 Fundamentals of Educational Research in Special Education
   EDP 642 Research Project in Special Education
   EDP 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

2. Advanced Courses 24 credits
   All of the following:
   EDP 612 Foundations of Special Education
   EDP 621 Teaching English Language Arts and Social Studies in Special Education and Inclusive Classrooms
   EDP 622 Classroom Management in Special Education and Inclusive Classrooms
   EDP 626 Principles of Assessment in Special Education
   EDP 640 Fundamentals of Educational Research in Special Education
   EDP 642 Research Project in Special Education
   EDP 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

Post-Master's Advanced Certificate for Leadership in Education
Program Coordinator: Assistant Professor Ruth Silverberg
Education Building (33) Room 105A; telephone: 1.718.982.3726
Email: silverberg@mail.csi.cuny.edu
The program is designed to prepare qualified candidates for leadership positions in schools in New York State, with an emphasis on effective leadership in urban schools. Upon successful completion of the program, students will have met the statutory requirements of the New York State Department of Education. All students move through the course of studies with a cohort.

Admission Requirements
1. A master's degree with a minimum average of 3.0 (B).
2. Evidence of four years' teaching experience in an accredited school or equivalent.
3. Professional recommendations (three).
4. An interview with faculty of the program and district partners.

Applications are accepted during the spring for admission in the summer session.

Degree Requirements
The program requires 30 credits of approved coursework within a cohort model including: 24 credits in supervision, administration, curriculum, policy analysis, human relations; theory, research, and practice in educational leadership; six credits in a field experience seminar.

Credit Distribution for Sequence 2 (45-48 credits)
1. Core Courses 18 credits
   EDE 601 Studies in Urban and Metropolitan Education
   EDE 609 Child Cognitive Development and Learning
   EDE 611 Teaching and Learning Social Studies in Elementary Education
   EDE 620 Studies in Urban and Metropolitan Education
   EDE 624 Reading, Assessment and Instruction in Elementary Education
   EDE 630 Practicum in Special Education
   EDE 640 Fundamentals of Educational Research in Special Education
   EDE 642 Research Project in Special Education
   EDE 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

2. Advanced Courses 24 credits
   All of the following:
   EDP 612 Foundations of Special Education
   EDP 621 Teaching English Language Arts and Social Studies in Special Education and Inclusive Classrooms
   EDP 622 Classroom Management in Special Education and Inclusive Classrooms
   EDP 626 Principles of Assessment in Special Education
   EDP 640 Fundamentals of Educational Research in Special Education
   EDP 642 Research Project in Special Education
   EDP 650 Integrating Technology in Math and Science Instruction in Special Education and Inclusive Classrooms

Sequence of Courses
EDF 700 Curriculum Design and Development
EDF 720 Supervision and Improvement of Instruction in Schools
EDF 724 Organization and Administration of Schools, Part I
EDF 726 Organization and Administration of Schools, Part II
EDF 728 Field Experience I
EDF 729 Field Experience II
EDF 751 Research Seminar in Leadership in Education
EDF 752 Educational Leadership, Part I
EDF 753 Educational Leadership, Part II
EDF 755 Law and Finance in Contemporary Schools

Cours
EDF 710 Curriculum Design and Development
EDF 720 Supervision and Improvement of Instruction in Schools
EDF 724 Organization and Administration of Schools, Part I
EDF 726 Organization and Administration of Schools, Part II
EDF 728 Field Experience I
EDF 729 Field Experience II
EDF 751 Research Seminar in Leadership in Education
EDF 752 Educational Leadership, Part I
EDF 753 Educational Leadership, Part II
EDF 755 Law and Finance in Contemporary Schools

Understanding and developing competence as a consumer in the use of research methods for studying issues and problems in instructional improvement, including interpretation of research, and school- and district-based performance data.

EDF 732 Educational Leadership, Part I
3 hours, 3 credits
Change in schools is explored theoretically through relevant literature in the fields of organizational and school change, while candidates consider change issues facing the field experience site.

EDF 733 Educational Leadership, Part II
3 hours, 3 credits
Candidates apply theoretical models of systems thinking to knowledge and understanding developed during the prior semester. Opportunities to collaborate with colleagues in the formulation of effective professional development; preparation for the application and interview process; development of entry strategies; human and intergroup relations theory and practice applied to decision making, communication, personnel relationships, and other functions of educational leadership. Candidates will prepare a portfolio of artifacts from all program courses reflecting their knowledge, understanding and developing vision for effective leadership.

EDF 735 Law and Finance in Contemporary Schools
3 hours, 3 credits
Candidates develop knowledge of laws and regulations at the city, state, and federal levels, including Federal Title legislation, IDEA and ADA, NCLB, New York State Regulations, Chancellor's Regulations, and contracts. Candidates apply knowledge to real situations in their schools, region, and New York State.

School finance is addressed at the school and district levels through development of strategic plans and use of budget software. Issues of national education policy are explored in a financial context.

EDC - Early Childhood Education
EDC 600 Contemporary Curriculum in Childhood Education in Grades 1-2
3 hours, 3 credits
A study of controversial issues affecting early childhood programs, curriculum, and practice in grades 1 and 2. Discussions of contemporary issues are placed within the context of the history of early childhood curriculum and curriculum theory. Emphasis is on enlarging and refining students' thinking on issues that impact early childhood education.

EDC 729 Field Experience Seminar in Leadership in Education I
3 hours, 3 credits
Selected individual projects and problems in actual supervision and administration, with opportunities for the student to exercise a leadership role related to action research in the schools. The seminar also provides for sharing understandings with colleagues while assisting them in the implementation of action research findings in school programs.

EDC 731 Research Seminar in Leadership in Education
3 hours, 3 credits
Understanding and developing competence as a consumer in the use of research methods for studying issues and problems in instructional improvement, including interpretation of research, and school- and district-based performance data.
EDC 601 Advanced Early Childhood Science and Mathematics Education
3 hours; 3 credits
An integrated approach to teaching science and mathematics at the early childhood level, grades N-3.

EDD - General Education

EDD 602 Studies in Urban and Metropolitan Education
3 hours; 5 credits
An examination of economic, social, and technological developments in American cities and the resulting educational changes for children in present-day urban areas. The social identities of children are explored in terms of race, class, gender, ethnicity, and ability. Promising programs of urban education are examined as well. This course discusses hazards to children, including child abuse, substance abuse, and child safety, as well as violence prevention. Students spend ten (10) hours in varied education environments examining the connections between school and society. Not open for students who have taken EDE 200, EDS 201, or equivalents.

EDD 606 History of Urban Education in the United States
3 hours; 3 credits
Examination of major developments in American educational thought, practice, and organization as they occurred in the cities of the United States. Emphasis on the role of identity politics and material transformations in shaping the character of public schools. Contemporary efforts to reform urban education are placed in historical context. This course meets the human relations requirement of the New York City Board of Education.

EDD 609 Child Cognitive Development and Learning
3 hours; 3 credits
Examination of the main concepts and principles of teaching/learning that stem from modern psychological theories of cognitive development. Students will analyze and critically evaluate different theoretical frameworks (constructivist, sociocultural, and information processing) and class discussions and other interactive formats. Students will learn how the ideas of developmental psychology can be integrated into their classroom teaching. A fieldwork component of ten (10) hours is included. Not open for students who have taken EDE 302 or its equivalent.

EDD 610 Adolescent Development and Learning
3 hours; 3 credits
Introduction to a range of core ideas regarding teaching and learning. Psychological, social, psychological, and cultural factors that influence students and classroom practice will be addressed, with primary attention to implications for student performance. The intent is to challenge traditional assumptions regarding adolescents' thinking, emotions, and social behavior, and to introduce current thought based on research findings. A fieldwork component of twenty (20) hours is included. Not open for students who have taken EDE 302 or its equivalent.

EDD 611 Advanced Educational Psychology
3 hours; 3 credits
This course is designed to acquaint the student with the broad scope of psychological investigations within the field of education. A critical analysis and evaluation of selected readings is intended to aid the student in interpreting professional literature.

EDD 612 Sociocultural Development during Childhood
3 hours; 3 credits
How a child becomes a member of a culture and the implications for development and schooling. A sociocultural perspective on child development will be used to achieve an understanding of children as members of their community and as participants in a world culture changing due to technology and popular culture. Discussion will move beyond research and theory to help students better understand the children in their classrooms.

EDD 613 Developmental Psychology: Childhood
3 hours; 3 credits
Developmental psychology of the child from birth to early adolescence with emphasis on the cognitive, social, and emotional aspects of growth that play a major role in elementary school learning. Theoretical formulations and research findings will be related to situations and problems.

EDD 615 Developmental Psychology: Adolescence
3 hours; 3 credits
Psychological development from early to late adolescence with emphasis on those aspects of personal and social adjustment that influence school learning in middle schools and high schools. Theoretical formulations and research findings will be related to situations encountered in the class by teachers.

EDD 616 Comparative and International Education
3 hours; 3 credits
Comparison of educational philosophies and systems in the modern world.

EDD 618 The Idea of the Contemporary University
3 hours; 3 credits
Examination of the contemporary critique of higher education with particular focus on curriculum issues within the university and their connection with curriculum issues in the primary and secondary schools. The mission of the university is explored through the works of such thinkers as Michael Oakeshott, Alfred North Whitehead, José Ortega y Gasset, and Giorgio Agamben, as to speculate on how their ideas inform our study. The course provides a forum for students to extend their understanding of the American university and its relationship to American society, especially lower educational institutions.

EDD 620 The Teacher and Curriculum Improvement
3 hours; 3 credits
Exploration of practices that improve the learning process. Examination of the role of the classroom teacher in planning classroom curriculum within the context of a specific school's purpose, function, and structure. Use of the Internet for curriculum development and delivery.

EDD 622 The School and its Community Relationships
3 hours; 3 credits
Examination of social forces affecting the school in American society; Socialization of the individual in the family, peer group, and community agency; group educational processes; and intergroup relations. Individual projects in testing general concepts through exploration of sociological phenomena in the local community.

EDD 624 Multithetic Approaches to Teaching
3 hours; 3 credits
Examination of the role of race, gender, ethnicity, and class in education. Beginning with a self-assessment of the impact of these interpersonal influences, students analyze learning environments, developing their own theoretical foundations for addressing race, gender, ethnicity, and social class in their classrooms. The course will focus on the works of Paulo Freire, Hieron Giroux, Bell Hooks, and Sandra Harding, among others.

EDD 626 Historical Themes and Interpretations
3 hours; 3 credits
Examination of selected themes in world history, such as nationalism, globalization, minorities and society, religion and the state, and humans and their environment. Each semester the course will focus on the development of one theme, affording students the opportunity to deepen their interpretation through case studies, critical analysis of tests, museum work, and Internet research.

EDD 627 Historical Perspectives on Mathematics Topics
3 hours; 3 credits
Examination of the historical origins and contemporary applications of mathematics topics selected from areas such as arithmetic computation, number theory, cryptography, graph theory, geometry, and probability. Emphasis upon exploration, analysis, and problem solving. Intended for teachers who wish to extend their own knowledge of mathematics and enhance classroom pedagogy.

EDD 628 Philosophy and Children
3 hours; 3 credits
Study of selected classics of Western philosophy. Creation of ways to bring philosophical issues, concerns, and practices into schools in forms accessible to students in grades K-12. Practice with community of inquiry teaching techniques.

EDD 630 Educational Seminar I
3 hours; 3 credits
Preparation for a student inquiry involving the collection of data on the premises and conditions of learning, including the identification of a topic, problem, or question for study, and the investigation of relevant literature. Students complete a critical literature review and design a project to be executed in EDD 631.

EDD 631 Educational Seminar II
3 hours; 3 credits
Implementation of a student-initiated inquiry involving the collection of data on the processes or conditions of learning. The seminar serves as a forum to guide and assess students' progress on their project designs from EDD 630. Students submit a formal written document and make an oral presentation, both of which critique relevant literature, analyze research findings, interpret the significance of the project, and consider its implications.

EDD 642 New Media of Instruction
3 hours; 3 credits
Students learn to apply new educational technology to enhance their own professional growth and productivity. They will use technology in communicating, collaborating, conducting research, decision making, and solving problems. Using the Internet as an educational resource and learning how to use technology in teaching and learning are the main goals of the course. Not open to students who have successfully completed CSC 462.

EDD 645 Sociology of Schools
4 hours; 4 credits
This course applies sociological approaches to the study of school organization and its effects. Students are introduced to a wide array of topics that relate to the embeddedness of schools in social contexts. The course will span a variety of organizational processes such as moral and technical socialization, stratification, authority, social cohesion, and knowledge organization and distribution.

EDE - Childhood Education (Elementary Education)

EDE 601 Teaching and Learning Social Studies in Elementary Education
3 hours; 3 credits
This course is designed to prepare prospective teachers for social studies instruction at the elementary level. The course examines the structure and concepts of the social studies as well as appropriate connections to other disciplines within the curriculum. Relevant research on child development and learning is incorporated, as an array of strategies to provide for students' special needs. Issues addressed include curriculum development, resources and materials, management, standards, assessment, and the educational application of technology. A fieldwork component of fifteen (15) hours is included. Not open for students who have taken EDE 302 or its equivalent.

EDE 602 Teaching and Learning Reading in Elementary Education
3 hours; 3 credits
The methodologies and materials used in reading instruction and literacy development. Students will analyze and apply strategies, organizational designs, materials, and assessments for language and literacy teaching. Technology will be infused throughout the course to facilitate teaching and learning processes. Emphasis will be placed on addressing the needs of students in urban contexts, who reflect a range of abilities, experiences, and diverse cultural and linguistic communities. A fieldwork component of fifteen (15) hours is included. Not open for students who have taken EDE 302 or its equivalent.

EDE 603 Teaching and Learning Mathematics in Elementary Education
3 hours; 3 credits
The design and implementation of mathematics lessons that will address the needs of students with a variety of abilities, the integration of instructional technology into the curriculum, and multiple approaches to assessment of learning. The roles of content, culture, and language are explored as they relate to the development of mathematical ideas, strategies, and models in the elementary years. A fieldwork component of fifteen (15) hours is included. Not open for students who have taken EDE 302 or its equivalent.
EDP 601 The Gifted Child in the Classroom 3 hours, 3 credits  Understanding gifted children and how to meet their educational needs.

EDP 602 Creative Arts in Special Education 3 hours, 3 credits A workshop in a variety of expressive art media used in teaching children with various learning disabilities.

EDP 610 Psychology of Exceptional Children 3 hours, 3 credits The psychological, educational, social, and communicative needs of exceptional children and theories of behaviorism and cognitive psychology as they relate to methods of instruction. All categories of exceptionality are covered, with emphasis on cultural and linguistic diversity. Students are required to spend 20 hours in a variety of special education settings collaborating with teachers, parents, and professionals from multidisciplinary teams to broaden their experiences with the practices and services available to students with disabilities.

EDP 611 Social Foundations of Special Education 3 hours, 3 credits The historical and legal background of special education, a sociological view of disability, and the current state of special education including issues confronting the field, such as inclusion, professionalism, and ethics. The course is designed to broaden students' understanding of the evolution of special education in the contexts of social, economic, and political forces. Students are required to spend 20 hours in a variety of special education settings collaborating with teachers, parents, and professionals from multidisciplinary teams to expand their understanding of the field of special education.

EDP 612 Foundations of Special Education 3 hours, 3 credits The psychological, historical, and social foundations of special education. All categories of exceptionality are covered, with emphasis on cultural and linguistic diversity. The course covers the current state of special education, including issues confronting the field, such as inclusion, professionalism, and ethics. Students are required to do 20 hours of fieldwork in a variety of special education settings, including an inclusive setting. Fieldwork entails collaboration with parents and professionals from multidisciplinary teams to expand their understanding of the field of special education.

EDP 613 Teaching Exceptional Adolescents 3 hours, 3 credits The course is designed to provide teachers with the knowledge and competencies required to implement a variety of learning strategies and study skills for improving the literacy skills of adolescents with learning disabilities. Theories and research findings that support the effectiveness of a cognitive approach to literacy instruction, instructional procedures, and facilitation of the process in which the learner is engaged are major components of the course.

EDP 631 Advanced Science Education for Elementary Teachers, Grades 1-2 3 hours, 3 credits Investigation of current instruction in science education in grades 1 and 2 with particular emphasis on the transformation of theory into classroom instruction. Current research studies and related literature will be utilized to provide a conceptual framework within which current trends in the discipline may be viewed.

EDP 632 Advanced Science Education for Elementary Teachers, Grades 3-6 3 hours, 3 credits Investigation of current instruction in science education in grades 3-6 designed to assist the teacher in presenting these concepts, the course explores a variety of perspectives concerning development and reinforcement of subject matter at success levels.

EDP 633 Advanced Mathematics Education for Middle School Teachers, Grades 3-7 3 hours, 3 credits Analysis of the conceptual structure in mathematics as applied to grades 1 through 7. Developed to aid the teacher in communicating mathematical concepts to students appropriate for grades 1 through 7.

EDP 634 Advanced Mathematics Education for Middle School Teachers, Grades 7-12 3 hours, 3 credits Analysis of the conceptual structure in mathematics as applied to grades 7 through 12. Developed to aid the teacher in communicating mathematical concepts to students appropriate for grades 7 through 12.

EDP 635 Advanced Teaching and Learning at the Middle School Level 3 hours, 3 credits Instructional strategies in the content, methods, and functions as well as structures, concepts and instruction of social studies to young adolescents are examined. Students explore a range of alternative strategies and techniques to address the needs of adolescents and beyond with special needs. Cultural and linguistic diversity are widely integrated in course content as in individual and group assignments in which students create specific curricula in Social Studies at the middle level. This course is designed to provide teachers with an inventory of ideas in Elementary Education.

EDP 636 Advanced Teaching and Learning Mathematics at the Middle School Level 3 hours, 3 credits Examination of issues and research in mathematics teaching and learning at the middle school level. Topics include curriculum, standards, technology, assessment, diverse learners, problem solving, instructional strategies, and resources.

EDP 637 Advanced Teaching and Learning Science at the Middle School Level 3 hours, 3 credits The course covers the pedagogy and educational issues in science that are fundamental to teaching and learning at the middle school level. Pedagogical topics include learning-teaching styles, classroom organization and management, safety and equipment concerns, experimentation, lesson planning and execution, assessment and evaluation, and standards-based programs. Educational issues related to science teaching that will be explored include alternative conceptions and conceptual change theories.
Education Courses

EDP 620 Teaching Exceptional Children with Severe and Low-Incidence Handicapping Conditions
3 hours; 3 credits
Methods, materials, and curriculum practices for teaching students with severe and low-incidence handicapping conditions. Adaptations and modifications for severely mentally retarded and emotionally disturbed persons will be discussed.
Pre- or corequisite: EDP 611

EDP 621 Teaching English Language Arts and Social Studies in Special Education and Inclusive Classrooms
3 hours; 3 credits
Examination of the learning and curricular needs of students with disabilities in English language arts and social studies. Emphasis is placed on students' acquisition of a knowledge base in these content areas and on effective methods of instruction. The cultural and linguistic diversity of students with disabilities is discussed in detail. Theory and practice of inclusive education environments provide additional experiences in teaching English language arts and social studies.
Pre- or corequisites: EDP 610 or EDP 612

EDP 622 Classroom Management in Special Education and Inclusive Classrooms
3 hours; 3 credits
The behavioral and psychological/approaches as they apply to classroom management. Techniques that increase desirable behaviors and techniques that ameliorate maladaptive behaviors are covered in detail for populations including those with mild/moderate, severe, and multiple disabilities. Preventive techniques are emphasized with emphasis in the classroom in which teachers need to accommodate students with diverse levels of functioning, as well as diverse cultural and linguistic backgrounds. Twenty hours of fieldwork in one setting help students apply the techniques reviewed during class. This course satisfies the NYS Department of Education human rights requirement.
Prerequisite: EDP 610 or EDP 612

EDP 623 Classroom Management in Special Education II: Practical Applications
3 hours; 3 credits
This course emphasizes the skills and competencies required to observe, define, interpret, and manage inappropriate behaviors effectively. Procedures and materials designed to facilitate positive changes in behavior will be discussed.
Prerequisites: EDP 610 and EDP 622

EDP 624 Reading: Assessment and Instruction in Special Education and Inclusive Classrooms
3 hours; 3 credits
Comprehensive coverage of the developmental nature of reading, approaches to assessment and instructional methods for correcting reading problems of students with disabilities. The informal assessment techniques discussed include traditional and alternative approaches. Students acquire the skills necessary to assess reading effectively and to make appropriate linkages to instruction. "Twenty hours of fieldwork in a variety of education settings provide additional experiences in diagnostic techniques and appropriate linkages to instruction.
Pre- or corequisites: EDE 602 and EDP 610 or EDP 611

EDP 625 Reading: Advanced Instructional Methods
3 hours; 1 credit
Advanced examination of current reading theories and instructional practices, with emphasis on improving the reading comprehension of students with disabilities. Students gain an in-depth understanding of the interactive nature of reading, the role of language development in reading acquisition, and the connections of language to reading and writing difficulties. Issues addressed include developmentally appropriate instruction, cultural and linguistic diversity, and literature-based instruction. Twenty hours of fieldwork in a variety of educational settings increase students' knowledge of activities and techniques that enhance reading comprehension.
Pre- or corequisites: EDE 602 and EDP 610 or EDP 611

EDP 626 Principles of Assessment in Special Education
3 credits
Basic principles of measurement, diagnosis, and student evaluation, including domains of intelligence, achievement, language, and behavior. Formal alternative assessment procedures and placement decisions are discussed. Authentic (performance-based) assessment techniques for instructional planning and ongoing assessment are also covered.
Pre- or corequisites: EDE 602 or EDE 612

EDP 627 Assessment for Instruction in Special Education and Inclusive Classrooms
3 hours; 3 credits
The development, administration, scoring, analysis, and interpretation of informal assessment techniques in the language arts and mathematics. Principles of curriculum-based assessment and criterion-referenced testing are covered in detail and applied in the construction of teacher-made tests. Students develop skills in observing, recording, and monitoring students' progress, and planning instruction in the context of a classroom curriculum.
Prerequisite: EDP 610

EDP 630 Practicum in Special Education
3 hours; 3 credits
Students complete 40 days or the equivalent in a mentored teaching experience. Students complete 20 days in a special education setting in grades 1-5 and 20 days in a special education setting in grades 4-8. Students currently employed as teachers work with a faculty member, a cooperating teacher, and the school principal or designee to enhance learning for individual and groups of children with varying abilities. Students meet once a week for two hours in a seminar to reflect upon the educational philosophies they have studied and the methodologies they are currently implementing in their own classrooms as they develop their own approaches to teaching and learning. Application for a student teaching assignment must be completed and filed with the Student Teaching Office the semester prior to the semester in which the student plans to student teach. Students must also submit three letters of recommendation from full-time faculty
Prerequisites: EDE 602, EDE 609, EDE 601, EDE 602, EDE 605, EDE 606, and EDP 623

EDP 653 Student Teaching in Special Education
6 hours; 6 credits
Practice and problem solving in student teaching in elementary school special education settings. Students are required to be in attendance at an assigned school full-time (8:30am-3:00pm) five days per week. Students will teach in grades 1-5 for part of the semester and in grades 4-8 for the remainder of the semester. Students meet once a week for two hours in a seminar to reflect upon the educational philosophies they have studied and the methodologies they are currently implementing in their own classrooms as they develop their own approaches to teaching and learning. Application for a student teaching assignment must be completed and filed with the Student Teaching Office the semester prior to the semester in which the student plans to student teach. Students must also submit three letters of recommendation from full-time faculty
Prerequisites: EDE 602, EDE 609, EDE 601, EDE 602, EDE 605, EDE 606, and EDP 623

EDP 660 Fundamentals of Research in Special Education and Inclusive Classrooms
2 hours; 2 credits
Primary Support Systems in Special Education and Inclusive Classrooms
3 hours; 3 credits
Teachers are asked to understand and addressing issues pertaining to the related service needs of exceptional children and youth and their families, with focuses on issues of assessment, placement, and provision of related services; information and prevention of child abuse (sexual, physical, emotional, neglect), and substance abuse. Supportive therapies and other resources addressing the diverse needs of exceptional children are also addressed.
Prerequisite: EDP 610

EDP 640 Fundamentals of Research in Special Education
3 hours; 3 credits
This research-based course introduces students to various methods of inquiry that include principles of empirical research, basic statistical and measurement concepts, and criteria for evaluating published educational research studies. A proposal is developed that is the basis for the culminating research project that students complete in EDP 642.
Prerequisites: EDE 600, EDE 611, or EDP 612

EDP 642 Research Project in Special Education
3 hours; 3 credits
This course is the second half of the research sequence. To complete the research projects they began in EDP 641, students review and synthesize the literature, collect data, apply statistical methods to data analysis, and write up where appropriate, and discuss the implications of their findings. The flexible design of the course allows students to develop their projects based on portfolios, curriculum design, or research projects that incorporate their understandings of the academic and social needs of students with disabilities, the field of special education, and issues inherent in inclusion. The final project represents the culminating experience of the program.
Prerequisites: EDE 621, EDE 622, EDE 640, and EDP 660

EDP 643 Internship in Special Education I
2 hours; 2 credits
This two-semester course emphasizes the philosophy, methods, and activities that reflect contemporary theories, research findings, and best practices in the field of special education, in group seminars or individual conferences. The fieldwork component will comprise internships with designated master teachers in special education classrooms. Faculty, master teacher, and graduate student will collaborate on various aspects of teaching and professional development.
Prerequisites: EDE 610, EDE 621, and EDE 622

EDP 644 Internship in Special Education II
3 hours; 3 credits
This second part of a two-semester course will emphasize philosophy, methods, and activities that reflect contemporary theories, research findings, and best practices in the field of special education in group seminars or individual conferences. The fieldwork component will comprise internships with designated master teachers in special education classrooms. Faculty, master teacher, and graduate student will collaborate on various aspects of teaching and professional development.
Prerequisite: EDE 643

EDP 645 Special Education in the Early Childhood Years
3 hours; 3 credits
This course will emphasize the comparison of normal child development to the special developmental discrepancies of the child with handicapping conditions in such areas as cognitive, motor, language, social, and behavioral functioning. Techniques of assessment, diagnosis, and program planning will be discussed. Emphasis will also be placed upon the needs of the family of young exceptional children.
Prerequisites: Enrollment in a Master's degree program in Education or the Advanced Certificate Program, and EDP 610
EDP 656 Teaching English Language Arts/Social Studies in Special Education and Inclusive Classrooms at the Middle School Level
3 hours, 3 credits
Examination of the learning and curricular needs of students with and without disabilities in English language arts and social studies at the middle school level. Emphasis is placed on students’ acquisition of a knowledge base in these content areas and on effective methods of instruction. The cultural and linguistic diversity of students with and without disabilities is discussed in detail.
Prerequisites: Entry into Sequence 3 program; EDP 601 and EDP 605.

EDP 657 Reading Assessment and Instruction in Special Education and Inclusive Classrooms at the Middle School Level
4 hours, 3 credits
The course offers comprehensive coverage of the reading difficulties of students with and without disabilities at the middle school level. Traditional assessment approaches are addressed, but emphasis is placed on informal assessment techniques including alternative/ authentic approaches. Students acquire the skills necessary to assess reading effectively and to use assessment data in the development of instructional plans.
Prerequisites: Entry into Sequence 3 program; EDP 651.

EDP 658 Teaching Mathematics and Science and Integrating Technology in Special Education and Inclusive Classrooms at the Middle School Level
3 hours, 3 credits
The pedagogy of science teaching and educational issues in science that are safe and supportive as well as intellectually stimulating and challenging for all students is examined. Graded Pass (P) or Fail (F).
Prerequisites: Admission to the Master's degree program in Special Education, Elementary Education, or Secondary Education; or the Pre- Master's Advanced Certificate Program for Leadership in Education; EDP 610.

EDP 660 Teaching Students with Special Needs in the General Education Classroom
3 hours, 3 credits
This course prepares educators to provide for the individual special needs of students with special behavioral differences who are integrated into general education programs. The course includes exploration of instructional techniques applicable to all children, with special emphasis on the pedagogical adaptations necessary to modify instruction for pupils with special needs.
Fieldwork component of twenty (20) hours is included.

EDP 665 Transition: Career and Vocational Education in Special Education
3 hours, 3 credits
The purpose of the course is to provide those involved in the education of individuals with special needs with an understanding of the philosophy of normalization and the cultural contexts within which this philosophy developed. The philosophy of normalizing the lives of individuals with disabilities originated in Denmark and was subsequently adopted in the United States. The course will address the implications of normalization on (1) the education and treatment of persons with disabilities, and (2) the relation of persons with disabilities to society at large. Students will specifically examine how the philosophy of normalization has been applied in Denmark and the United States, where it is embodied in the least restrictive environment protections.
Prerequisites: EDP 610 or equivalent.

EDS - Adolescence Education (Secondary Education)

EDS 601 Teaching and Learning Secondary School English, History, and Social Studies
3 hours, 3 credits
Examination of the current issues and trends in English teaching. Students are introduced to approaches and instructional strategies that support active learning in the English language and literature. The teaching of writing is emphasized, and made/reponse theories are explored as they relate to teaching literature to adolescents. On completion of this course, students will be able to identify and develop units and lessons that reflect knowledge of the English curriculum standards, and the needs and interests of adolescents of varying backgrounds and abilities. A fieldwork component of thirty (30) hours is included. Not open to students who have taken EDS 302 or its equivalent.

EDS 602 Teaching and Learning Secondary School English, History, and Social Studies
3 hours, 3 credits
Examination of the current issues and trends in English teaching. Students are introduced to approaches and instructional strategies that support active learning in the English language and literature. The teaching of writing is emphasized, and made/reponse theories are explored as they relate to teaching literature to adolescents. On completion of this course, students will be able to identify and develop units and lessons that reflect knowledge of the English curriculum standards, and the needs and interests of adolescents of varying backgrounds and abilities. A fieldwork component of thirty (30) hours is included. Not open to students who have taken EDS 302 or its equivalent.

EDS 603 Teaching and Learning Secondary School Mathematics
3 hours, 3 credits
Investigation of the issues and research in mathematics teaching and learning. Topics include curriculum, standards, technology, assessment, diverse learners, problem solving, instructional strategies, and more. A fieldwork component of thirty (30) hours is included. Not open to students who have taken EDS 303 or its equivalent.

EDS 604 Teaching and Learning Secondary School Science
3 hours, 3 credits
The pedagogy of science teaching and educational issues in science that are safe and supportive as well as intellectually stimulating and challenging for all students is examined. Graded Pass (P) or Fail (F).
Prerequisites: Admission to the Master's degree program in Special Education, Elementary Education, or Secondary Education; or the Pre-Master's Advanced Certificate Program for Leadership in Education.

EDS 605 Integrating Curriculum and Technology in Special Education and Inclusive Classrooms
2 hours, 2 credits
Focuses on the roles of technology to address and remediate special educational needs for secondary students. Topics include computer software programs and Internet resources to promote learning for individual and groups of children of varying abilities. Students meet once a week for two hours in a seminar to reflect upon the educational philosophies they have studied and the methods they are currently implementing in their own classrooms as they develop their own approaches to teaching and learning. The teachers’ role in developing environments that are safe and supportive as well as intellectually stimulating and challenging for all students is examined. Graded Pass (P) or Fail (F).
Prerequisites: EDS 602, EDS 610, and EDS 601, EDS 602, EDS 603, or EDS 604.

EDS 610 Teaching Practicum I in Secondary Education
1 hour, 1 credit
Students complete 20 days in a mentored teaching experience in a secondary school setting in grades 7-9 or 10-12. Students currently employed as teachers work with a faculty member, a cooperating teacher, and the school principal or designee to enhance learning for individual and groups of children of varying abilities. Students meet once a week for two hours in a seminar to reflect upon the educational philosophies they have studied and the methods they are currently implementing in their own classrooms as they develop their own approaches to teaching and learning. The teachers’ role in developing environments that are safe and supportive as well as intellectually stimulating and challenging for all students is examined. Graded Pass (P) or Fail (F).

EDS 611 Teaching Student in Secondary Education
6 hours, 8 credits
Practice and problem solving in student teaching in secondary schools. Students are required to be in attendance at an assigned school full time (8:30am-3:00pm), five days per week. Students will teach in grades 7-9 for part of the semester and in grades 10-12 for part of the semester. Students meet once a week for two hours in a seminar to reflect upon the educational philosophies they have studied and the methodologies they are currently implementing in their own classrooms as they develop their own approaches to teaching and learning. Application for a student teaching assignment must be completed and filed with the Student Teaching Office the semester preceding the semester in which the student plans to student teach. Students must also submit three letters of recommendation from full-time Education faculty. Graded Pass (P) or Fail (F).
Prerequisites: EDS 602, EDS 610, and EDS 601, EDS 602, EDS 603, or EDS 604.
Program Coordinator: Professor Maryann Feola

Master of Arts in English (MA)

Prerequisites: For Sequence 1 students: EDS 301 and EDS 400 or permission of instructor. For Sequence 2 students: EDS 601 and EDS 609 or EDS 611 or permission of instructor.

EDS 690 The Teaching of Writing (4 credits).
ENG 650 Writing Across the Curriculum (4 credits).
ENG 642 Modern Grammar (4 credits).
ENG 651 Sociolinguistics (4 credits).
ENG 657 Models of Second Language Acquisition (4 credits).

Two master's papers (2 credits)

The two master's papers will be course papers. Candidates will choose their own topic in consultation with their instructor and submit the paper to the Coordinator of the MA Program. The two papers will be read by two faculty members and graded Honors, Pass, or Fail. The first paper is to be submitted before enrolling in a fifth graduate course, the second before taking the master's examination.

Master's examination (2 credits)

The master's examination is intended to provide candidates with an opportunity for further reading and independent study and to test their ability to read, interpret, and synthesize. It will select three of their courses for this examination and will be asked to answer questions with reference to works both assigned in those courses and on the supplementary reading lists provided by their instructors. Candidates with the Rhetoric option may elect linguistics, writing, and the teaching of writing for two of their three courses.

The master's examination is a three-hour written examination and is graded Honors, Pass, or Fail. Credit for two hours of independent study will be awarded upon passing.

Hons

To earn the degree with honors, a grade point average of 3.5 and grades of Honors on the master's examination and at least one of the master's papers are required.

The MA in English at CSI is not a research-oriented degree. There is no foreign language requirement for the MA in English at CSI. Students planning to continue graduate studies beyond the MA, however, should take note that most doctoral programs in English require a reading knowledge of at least two foreign languages, and the City University Graduate Center requires three, one ancient (Greek or Latin) and two modern.

Courses

Linguistics, Writing, and the Teaching of Writing

ENG 630 Writing Across the Curriculum (4 hours, 4 credits)

An introduction to the principal issues, both theoretical and practical, in writing across the curriculum. Topics for reading and discussion will include models of the writing process, kinds of writing, writing for learning and writing for testing, teaching English and teaching in the content area. The class will develop a series of writing assignments in content areas useful to its members.

ENG 640 Workshop in Creative Writing (4 hours, 4 credits)

The particular genre will be announced each semester: poetry, fiction, playwriting, or creative nonfiction. Discussion of writing problems and procedures arising from the experience of the class. Although the reading material will primarily be the work of the class, there will be some attention to the theory and practice of professional writers.

ENG 650 Workshop in Writing about Literature (4 hours, 4 credits)

Extensive practice in writing about literature in conjunction with readings in several major works. Discussion of major approaches to writing about literature such as the historical, the biographical, the psychological, the formalistic, the archetypal, and the philosophic.

ENG 670 Workshop in Autobiographical Writing (4 hours, 4 credits)

Extensive practice in autobiographical writing in conjunction with readings in autobiography. Discussion of issues arising from the experience of the class as well as relationships among fact and value, reality and imagination, historical circumstance and myth.

ENG 680 Contemporary American Usage (4 hours, 4 credits)

The study of standard American practice with regard to grammar, punctuation, quotation, bibliography, footnotes, and proofreaders' marks.

ENG 682 Modern English Grammar (4 hours, 4 credits)

A generative-transformational analysis of the English sentence and a normative approach to contemporary usage. An introduction to sentence diagramming according to the principles of generative grammar with attention to deep and surface structure and semantic features. Traditional grammar is reformulated in transformational terms and usage taught with reference to generative theory.

ENG 683 Sociolinguistics (4 hours, 4 credits)

The interaction of language with region, class, sex, and nationalism. Special consideration is given to Black English, urban dialects, and educational policy. An exploration of regional and class dialects, the reactions to them, and the historical reasons for their development. The differences between male and female speech as well as the different ways language refer to sex are considered. The debate over biculturalism in the schools is revisited as well as the role of language in nationalism and questions of language policy in developing countries.

ENG 686 The Teaching of Writing (4 hours, 4 credits)

An introduction to the key issues, both theoretical and practical, in the teaching of writing. Topics such as the following will be approached through readings in the literature and class scrutiny of the participants' own experiences as writers: relations between speech and writing, models of the writing process, standard English, bilingualism, and biculturalism, special problems of English-as-a-second-language strategies for overcoming blocks and interference, evaluation of growth in writing.

ENG 687 Models of Second Language Acquisition (4 hours, 4 credits)

This course presents various models of second language acquisition, including the monitor model, interlanguage theory, linguistic universals, and sociocultural models. Public policy issues such as English-only bilingual education, and immigration, are explored. In addition, factors that may interfere with second language learning and those that may enhance it are studied. Content are made between learning ESL as a child or an adult with special reference to the critical period hypothesis.

Prerequisite: Graduate students only
Environmental Science (MS)

ENG 688 Composition Theory and Rhetorical Models 4 hours; 4 credits
Course focuses on recent developments that have brought new theories of writing and new methods of teaching to English classes. Among the schools of thought and research communities explored are expressionism, cognitivism, social-epistemic rhetoric, cultural studies, and critical pedagogy.
Prerequisites: Graduate students only

ENG 689 Studies in Composition and Rhetoric 4 hours; 4 credits
An in-depth study of single subjects in composition theory and contemporary rhetoric. Possible subjects could include: an in-depth study of a single paradigm, a study of a major figure in the field, examination of a research methodology, an exploration of assessment models, an in-depth reading of a current controversy.
Prerequisite: Graduate students only

Literature

ENG 710 Studies in Literary Theory 4 hours; 4 credits
This course offers students the opportunity to think critically and self-consciously about the way they approach literary study. Students will gain an understanding of analytical discourses and practices in literary studies. Such understanding is necessary because it has become increasingly central to the field. Instructors are free to design the course according to various temporal or methodological frameworks

ENG 719 Studies in Anglo-Saxon Literature 4 hours; 4 credits

ENG 721 Studies in Medieval English Literature 4 hours; 4 credits

ENG 722 Studies in the Literature of the English Renaissance 4 hours; 4 credits

ENG 723 Studies in Restoration and 18th-Century English Literature 4 hours; 4 credits

ENG 724 Studies in 19th-Century English Literature 4 hours; 4 credits

ENG 725 Studies in 20th-Century English Literature 4 hours; 4 credits

ENG 726 Studies in Shakespeare 4 hours; 4 credits

ENG 727 Studies in American Literature before 1900 4 hours; 4 credits

ENG 728 Studies in American Literature after 1900 4 hours; 4 credits

ENG 729 Studies in Classical and Biblical Backgrounds to Literature 4 hours; 4 credits

Master of Science in Environmental Science (MS)

Program Coordinator: Prof. Alfred Levine

Biological Sciences/Chemical Sciences Building (65), Room 510
Email: envirsctns@mail.cuny.edu
Telephone: 718.997.5200

The program is designed to provide broad interdisciplinary training in those areas of the biological, engineering, physical, chemical, and social sciences that are important in solving environmental problems. Graduates are prepared for careers in both governmental agencies and private companies working on such problems as pollution control, environmental impact, and urban planning, and for careers in environmental education. Students can use this degree to prepare for a PhD. The College has extensive modern laboratories and computer facilities.

Admission Requirements
1. An acceptable bachelor’s degree from an institution whose degree requirements are substantially equivalent to those of the College of Staten Island or other senior units of The City University of New York. Ordinarily, this would be a bachelor’s degree in a natural science or in engineering.
2. An overall average of B minus, or the equivalent, in undergraduate work and an average of B, or the equivalent, in undergraduate science and engineering courses. The undergraduate credits must include at least one year each of general chemistry and general physics, mathematics through differential and integral calculus, and at least one semester of organic chemistry. Candidates who are deficient in one or more of these requirements may be accepted on the expectation that they will make up the deficiency without receiving graduate credit for it.
3. An interview with faculty of the graduate program.
4. The applicant is ordinarily required to submit the results of the General Aptitude Test of the Graduate Record Examination. Applicants should apply directly to the Educational Testing Service, Box 95, Princeton, NJ 08540, to take the test. Applicants should take these examinations no later than February for fall admission and July for spring admission.

Degree Requirements
Thirty credits in approved courses with an average of at least 3.0 (B). The courses normally include The Biosphere and Our Species, Community Ecology, Earth Science, Applied Environmental Science, one course from an approved list of graduate courses in the social sciences, and a thesis project for a minimum of three to a maximum of six credits. The remaining 12 credits are chosen so that the concentration will be in either environmental biology or applied environmental science. Courses may be chosen from environmental science and social science courses at the College or from appropriate courses offered in graduate programs in the City University Graduate School and University Center.

Courses
ESC 601 The Biosphere and Our Species 3 hours; 3 credits
A required course that covers the structure and function of the biospheric ecosystem on the planet Earth, and the impacts of our species upon it in terms of ecology, resource and exploitation, sociopolitical aspects, economics, environmental ethics, and related topics. (Also creditable toward biology requirements.)

ESC 702 Community Ecology 3 hours; 3 credits
Function and integration of natural communities and ecosystems: trophic structure, energy flow, species diversity and dominance, stability and resilience, interspecific interactions. Selected topics from the current literature. (Also creditable toward biology requirements.)

ESC 703 Earth Science 3 hours; 3 credits
Ecological significance of physical geology and geochemistry, textures, pedogenesis, erosion and deposition. The hydrosphere and atmosphere, modern approaches to chemical analysis. Equal emphasis will be placed on physical theory and diagram, chemical theory and procedure. Topics include isotope and electromagnetic methods, magnetic resonances, radioactivity, and separation techniques applicable to analysis of environmental pollutants.

ESC 721 Methods in Environmental Analysis 3 hours; 3 credits
Collection and analysis of water, air, and soil samples in local terrrestrial and aquatic habitats. Various sampling methodologies will be used in the field to collect data that will be analyzed and tabulated statistically.

ESC 722 Marine Ecology (Also BIOL 722) 3 hours; 3 credits
Field-oriented study of estuarine and pelagic ecosystems. This course will emphasize how spatial and temporal scales are critically important in the study of marine organisms. Students will learn specialized sampling and analytical techniques necessary for the study of marine systems. Topics will include comparisons of “rate-based” versus “abundance-based” studies of population dynamics plus comparisons of individual, population, and community levels of analysis.

ESC 724 Computer Simulation of Environmental Systems 3 hours; 3 credits
The development and construction of mathematical models, defining parameters and quality criteria. Analog, digital, and hybrid techniques in environmental science. Course work will focus on model verification, control policies based on simulations. Also creditable toward biology requirements.

ESC 725 Energy Sources and the Environment 3 hours; 3 credits
The environmental impact of present and future sources of power. Methods of power production and distribution, analysis of energy resources, pollution control and conversion, environmental systems. Case studies of power generation, control policies based on simulations. Also creditable toward biology requirements.

ESC 726 Transportation Systems 3 hours; 3 credits
Urban travel characteristics and needs determined by origin destination surveys, population and economic factors, and land use. Traffic-activity techniques for obtaining data on speeds, travel times, delays, and volume. Capacity analyses for freeways, city streets, air corridors, and railroad traffic. Criteria considered in selection of the “optimum” transportation plan. Presentation of current advances in the state of the art.

ESC 727 Conservation Biology (Also BIOL 727) 3 hours; 3 credits
Conservation biology is a multidisciplinary field of environmental science. The objectives of this course are: (1) to understand global biodiversity in its historical context; (2) to learn how human impacts are endangering ecosystems around the world; (3) to identify the biological properties of organisms, population, species, and systems that make them vulnerable; and (4) to explore means of protecting biodiversity and the ecological processes on which it depends.

ESC 710 Instrumentation for Chemical Analysis 4 laboratory hours; 2 lecture hours
Lecture and laboratory work covering theories and applications of...
Toxicology is the overview of the mechanisms by which exogenous agents produce deleterious effects in biological systems. An overview of the role of secondary metabolites in ecological interactions within and among species. Allelopathy; defense mechanism; chemical co-evolution and the organization of natural communities. (Also creditable toward biology requirements.)

Prerequisites: Any two of the following: ecology, behavioral biology, organic chemistry

ESC 751 Biogeography
3 hours; 3 credits
Distribution of biomes of the world. Impact of geologic and climate change on the ranges of plants and animals. Experimental biogeography; models of colonization and invasion, effects of humans on regional biota. (Also creditable toward biology requirements.)

Prerequisites: Any two of the following: ecology, evolution, historical geology; or college geographers

ESC 753 Systems Ecology
3 hours; 3 credits
Systems approach to energy flow, bio-geochemical cycles, and resource management: systems analysis, description, analysis, and simulation modeling. Examination of systems studies in current literature. (Also creditable toward biology requirements.)

Prerequisites: Ecology; calculus, statistics, and ESC 270 or equivalent, or permission of the instructor

ESC 760 Experimental Design and Analysis
3 hours; 3 credits
Statistical analysis of research and survey data with emphasis on the design of experiments, regression analysis, and analyses of variance. Prerequisites: Introductory statistics, biometrics, or equivalent

ESC 745 Cellular Toxicology
(Also BIO 743)
4 hours; 4 credits
Toxicology is the overview of the mechanisms by which exogenous agents produce deleterious effects in biological systems. An overview of the sensitive analytical techniques that have facilitated studies on the metabolism and biotransformation of xenobiotics and have contributed to an interpretation of the biological and toxicological effects of xenobiotics will be presented. Since the action of toxins is ultimately exerted at the cellular level, emphasis will be placed on the description of representative model cell systems that play an important role in the identification and characterization of potential environmental hazards. A variety of pinkacyte and eukaryotic cell systems are currently in use for the study of different toxic effects including cytotoxicity, genotoxicity, and mutagenesis.

Prerequisites: QM 250, BIO 114, BIO 352 or equivalent

ESC 748 Environmental Chemistry
3 hours; 3 credits
The science of chemical phenomena involving the nature, reactions, transport of natural and anthropogenic chemicals in the natural environment, including the lithosphere, hydrosphere, and atmosphere. The interaction between chemical species, and the effects of the physical conditions, and the role of microorganisms. Specific emphasis on pollutants and hazardous wastes.

Prerequisite: General chemistry

ESC 752 Soils and Geohydrology
3 hours; 3 credits

ESC 753 U.S. Land-Use Planning and Environmental Policy
(Also GEO 753)
3 hours; 3 credits
This course explores contemporary American land-use and environmental planning issues in terms of their historical background, regulatory setting, cultural context, and practical politics. It focuses on specific local, regional, and national studies and introduces students to Geographic Information Systems (GIS) as a way of analyzing land-use problems.

Prerequisite: ESC 601 (Drosophila and our Species)

ESC 760 Epidemiology
3 hours; 3 credits
The study of health and disease through analysis of geographical and temporal patterns of health risks and diseases, and of the populations affected. Demographic (mortality and morbidity) and epidemiologic (clinical, community, cohort, and case-control) studies. Statistical analyses and designs. Determination of biological inference and risk. Pre- or co-requisite: ESC 740, or permission of the instructor

ESC 799 Thesis Research
Hours and credits vary; maximum 6 credits
This course may be repeated. No student may apply more than a total of six credits of thesis research toward the degree.

ESC 891 (1 credit), ESC 892 (2 credits), ESC 893 (5 credits), ESC 894 (4 credits), Graduate Independent Study in Environmental Science

Master of Arts in History (MA)
Program Coordinator: Associate Professor Richard Lufano
History/Political Science, Economics, and Philosophy Building (ZN), Room 215
Email: historymajors@mail.scsu.edu
Phone: 718/982-2870

The study of the past, has its mysteries. For students drawn to explore them, the Master's degree in History at the College of Staten Island provides opportunities for personal growth and career development. The program meets the highest intellectual and professional standards of the historical discipline, offering training in the analytic and communications skills demanded by all the professions.

Whether graduate students are interested in the master's degree to satisfy curiosity about the past, or as a preliminary step toward doctoral study, they will benefit from an explanation of the histories of Africa, Asia, Europe, and North and South America; they also will learn to recognize historical questions and to apply the methods historians have developed to answer and describe critical human events.

The program is particularly suited to teachers in the social sciences with initial certification who wish to deepen their knowledge of how as they complete the master's degree qualified demand professional certification. Careers in cultural institutions are also open to students with the professional training in historical research provided by the master's program.

Graduates of the Master's program in History at the College of Staten Island will acquire an overview of global history and a thorough knowledge of a geographic area of specialization. The curriculum requires coursework distributed across four of the department's five fields of concentration: History of Africa and the Middle East, History of Asia, History of Europe, History of Latin America and the Caribbean, and History of the United States. Students will explore one of these areas in depth, and will complete a significant work of historical scholarship, a master's thesis under the supervision of a thesis director. Students desiring recommendation for doctoral work will demonstrate competence in at least one foreign language.

Admission Requirements
For matriculated status:
1. Satisfactory completion of a bachelor's degree from an accredited college and a cumulative grade point average of at least 3.0. Students not meeting this requirement will be evaluated after an interview with the program coordinator and the admissions committee.
2. A superior record of accomplishment in undergraduate history courses, with at least a 3.0 average in these courses. Students not meeting this requirement will be evaluated after an interview with the program coordinator and the admissions committee.
3. Two letters of recommendation from teachers.
4. Students will be required to take the Graduate Record Examination (GRE).
5. Each applicant will provide a letter or statement not to exceed one page explaining why he or she is interested in pursuing graduate studies in history.

Degree Requirements
The MA in History requires 36 graduate credits, with all graduate courses designated at four credits, for a total of eight courses. Students must take at least one course in each of four of the program's five areas of concentration, the Historical Methods course, and the two thesis seminars.

Students with initial certification in Historical Education (social studies) wishing to obtain professional certification will complete a program of 36 credits. They will take HST 798 (4 credits) and HST 799 (4 credits) with the others in their cohort. In addition, they will take EDS 691 Advanced Studies in Teaching Secondary Social Studies (3 credits) and an independent study course (1 credit) in the Department of Education.

Areas of concentration
History of Africa and the Middle East
History of Asia
History of Europe
History of Latin America and the Caribbean
History of the United States

Thesis
Students in their third semester will take the four-credit HST 798 Preparation of Thesis Proposal Seminar with an additional four-credit HST 799 Thesis Tutorial Seminar during the fourth semester.
1. In the preparation of a proposal seminar, thesis students will develop their topic, begin research, collect bibliography, and receive instruction in research methodology and historical writing. Students will choose a thesis advisor and second reader, normally from the department faculty.
2. The thesis advisor will continue to supervise the thesis student during the fourth semester in the tutorial seminar. The thesis will be accepted in partial completion of the degree when it is approved by the seminar instructor, the thesis advisor, and the second reader, and is deposited in the department's archives. (See guidelines for thesis submission to the CSL Library - Appendix I.)
Courses

HST 701 Historical Method 4 hours; 4 credits
This course presents an advanced study of the philosophy and method of historical research, with particular attention to writing and teaching history. While intended to familiarize students with the traditions and current practice of the historical profession, the course will also acquaint students with specific problems in historical research reflected in the publications of the seminar instructors.

Courses in the areas of concentration:

HST 704 Topics in the History of Africa 4 hours; 4 credits
This course examines the history of Africa. Topics in the history of Africa will cover such issues as slavery in African societies, ethnicity, class, and power in 20th-century Africa, Africa in the post-Cold War era.

HST 708 Topics in the History of the Middle East 4 hours; 4 credits
This course examines the history of the Middle East. Topics in the history of the Middle East will feature such issues as women and gender in Islam, the historiography of the Middle East, and the Middle East through literature and film. The approach will be predominantly historical, but perspectives from the different social sciences will deepen the analysis.

HST 710 Topics in the History of South Asia 4 hours; 4 credits
This course covers important issues in South Asian history. Topics in South Asian History presents an examination of aspects of the social, political, and cultural history of India from the Mauryans to the Gupta periods, and Islamic rule from the Sultanate of Delhi to the Mogul period, Modern South Asia, a study of British imperial rule in South Asia and the development of India, Pakistan, Sri Lanka, and Bangladesh since independence.

HST 711 Topics in the History of East Asia 4 hours; 4 credits
This course covers important issues in East Asian history. Topics in East Asian History explore the history of China, Japan, and Korea, with an emphasis on how these countries have developed through contact with the West and the rest of the world. The course will cover the history of China, Japan, and Korea from ancient times to the present, with an emphasis on the impact of foreign influences on Chinese society and culture.

HST 722 Topics in Caribbean History 4 hours; 4 credits
This course will focus on the period from Columbus’s arrival in the Caribbean to the abolition of slavery in the 19th century. Among the topics that may be examined: the pre-Hispanic Caribbean Spanish contact with the Arawaks and Caribs, settlement and colonies, the Atlantic slave trade, “King of the World” of Europeans and Africans, Caribbeans, the world of slaves, free persons of color, the Haitian Revolution, metropolitan-directed abolitionism, the Morant Bay Revolt, the emergence of Cuban nationalism.

HST 725 In U.S. History to 1865 4 hours; 4 credits
This course covers the period of colonial American history until the Civil War. Important topics in the early history of the United States will be explored. These include: the emergence of the American Republic; the rise of the Democratic Party; the development of the economy; and the conditions of American society.

HST 726 In U.S. History since 1865 4 hours; 4 credits
This course covers the period of U.S. history that begins with Reconstruction and moves forward to contemporary issues. Important topics in the history of the United States will be explored. These include: the civil rights movement; the Vietnam War; the Watergate scandal; the development of the economy; and the conditions of American society.

HST 717 Topics in European History from the Renaissance 4 hours; 4 credits
This course examines important themes in the history of Europe from the time of the Renaissance. The course will require students to analyze issues in social, political, religious, and intellectual history through the use of primary and secondary sources. Topics in European History from the Renaissance may include: the European Renaissance, the Reformation and Counter Reformation, the English Civil War, the French Revolution, the Industrial Revolution, the Russian Revolution and world communism, the world war, the post-war synthesis, and the European Union.

Ottoman Empire in Eastern Europe. This course examines important themes in the early history of Europe. Among the topics that may be examined: the rise of the Ottoman Empire; the role of the Catholic church in the countries of the Ottomans; the American west; American popular culture.

HST 720 Topics in Latin American History 4 hours; 4 credits
This course covers important issues in the early and later history of Latin America. Topics in Latin American history may include a study of the Iberian discovery of America and the conquest of the native peoples from 1492 to 1550, the role of the Catholic church in the countries of the Iberians; the Latin American wars of independence, reform and revolution in Latin America, race in Latin America, the 20th-century Latin revolutions, U.S.-Latin American relations, and Cuban reform and revolution.

HST 798 Preparation of Thesis Proposal 4 hours; 4 credits
Students in their third semester will enroll in the Preparation of Thesis Proposal Seminar. The seminar will develop their topic, begin research, and receive guidance in research methodology and historical writing. Before completion of the seminar students will choose a director and a second reader.

HST 799 Thesis Tutorial Seminar 4 hours; 4 credits
While students are working on their thesis under the supervision of their director, they will also participate in the Thesis Tutorial Seminar. The seminar will monitor students’ progress on their thesis and supervise schedules of meetings with their directors. Students will present portions of their work in progress for analysis and discussion. The director and a second and third reader, assigned by the department, will read the final draft of the thesis.

HST 799 Thesis Tutorial Seminar 4 hours; 4 credits

LBS 710 Roots of Modern Culture 3 hours; 3 credits
This course presents an overview of the development of modern culture, from the Renaissance to the present day. Students will study the major movements and figures that have shaped modern culture, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern culture, and how it has shaped our understanding of the world.

LBS 720 Roots of Modern Society 3 hours; 3 credits
This course presents an overview of the development of modern society, from the Industrial Revolution to the present day. Students will study the major events and figures that have shaped modern society, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern society, and how it has shaped our understanding of the world.

LBS 730 Modern Culture 3 hours; 3 credits
This course presents an overview of the development of modern culture, from the Renaissance to the present day. Students will study the major movements and figures that have shaped modern culture, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern culture, and how it has shaped our understanding of the world.

LBS 740 Modern Society 3 hours; 3 credits
This course presents an overview of the development of modern society, from the Industrial Revolution to the present day. Students will study the major events and figures that have shaped modern society, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern society, and how it has shaped our understanding of the world.

Liberal Studies (MA)

LBS 710 Roots of Modern Culture 3 hours; 3 credits
Consideration of the artistic and literary traditions inherited from the Renaissance and the significant classical revival of the 18th and 19th centuries in order to identify and assess those divergent aesthetic movements in the 19th and 20th centuries that gave rise to modernism. An in-depth analysis of the role of the arts in modern society will be made, including works discussed in their fullest artistic, literary, philosophical, scientific, and historical context.

LBS 720 Roots of Modern Society 3 hours; 3 credits
This course presents an overview of the development of modern society, from the Industrial Revolution to the present day. Students will study the major events and figures that have shaped modern society, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern society, and how it has shaped our understanding of the world.

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LBS 740 Modern Society 3 hours; 3 credits
This course presents an overview of the development of modern society, from the Industrial Revolution to the present day. Students will study the major events and figures that have shaped modern society, including the Industrial Revolution, the Romantic movement, and the rise of the modern city. Students will also learn about the role of technology in modern society, and how it has shaped our understanding of the world.

Degree Requirements

To receive the Master of Arts degree in Liberal Studies students must complete the following requirements:

1. All courses must be completed with a cumulative grade point average of at least 3.0 (B). The courses are LBS 710, 720, 740, 750, 760, 770, 780, and electives totaling 50 credits.

2. Students must complete a master’s essay that will be an extended reflection on a problem of contemporary social and/or cultural interest drawn on the intellectual tradition of the liberal arts and on the student’s own values and analysis. The completed essay must be judged acceptable by the student’s master’s essay adviser and by the coordinator of the Master of Arts in Liberal Studies Program.

LBS 710 Roots of Modern Culture 3 hours; 3 credits
An analysis of the transition of the Western world from an agrarian, rural society to an urban, industrial, technological society, and the accompanying changes in economic and political structure and social values through a study of selected works written during this period concerned with social, scientific, philosophical, and political analysis and theory.

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An analysis of the transition of the Western world from an agrarian, rural society to an urban, industrial, technological society, and the accompanying changes in economic and political structure and social values through a study of selected works written during this period concerned with social, scientific, philosophical, and political analysis and theory.

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LBS 740 Modern Society 3 hours; 3 credits
An analysis of the transition of the Western world from an agrarian, rural society to an urban, industrial, technological society, and the accompanying changes in economic and political structure and social values through a study of selected works written during this period concerned with social, scientific, philosophical, and political analysis and theory.
LBS 750 Interactions of Western and Non-Western Societies
3 hours; 3 credits
An introduction to the structure and values of a selected non-Western civilization and a study of the cross-cultural impact of Western expansion since 1500. A variety of sources will be used such as fiction, anthropological studies, historical journals, travelers' accounts, and works of art.
Prerequisite: LBS 730 or 740

LBS 760 Ancient Roots of Modern Thought
3 hours, 3 credits
A study of key figures of ancient and medieval thought chosen from figures or works such as the Bible, Thucydides, Plato, Aristotle, Sophocles, Virgil, Cicero, Augustine, Aquinas, and Dante. The emphasis will be on understanding the works and their relationship to the intellectual traditions of the Western world as studied in the previous courses.
Prerequisite: LBS 730 or 740

LBS 770 Seminar: Values and Contemporary Issues
3 hours, 3 credits
A seminar in which the instructor and the students will develop an understanding of topics of contemporary social and cultural concern that have been chosen by the students as subjects of their master's essay. Each student must have chosen a topic before the beginning of the seminar. In the seminar the instructor and students draw on the works read and discussed in the previous courses to illuminate the topics of the essays. Drafts of portions of student essays are discussed.
Prerequisites: LBS 730, 740, 750, 760, and permission of the MALS program coordinator.
Compares LBS 780

LBS 780 Master's Essay Tutorial
3 hours; 3 credits
A tutorial in which the student and master's essay advisor meet weekly to discuss drafts of portions of the student's master's essay. Credit is awarded on successful completion of the master's essay and its acceptance by the master's advisor and program coordinator.
Prerequisite: Permission of the MALS program coordinator.
Compares LBS 770

Master of Science in Neuroscience, Mental Retardation, and Developmental Disabilities (MS) Program Coordinator
Associate Professor Andrzej Wieraszko, PhD
Email: banerjeet@posthrs.cs.cuny.edu
Telephone: 718-982-9398
Biological Sciences/Chemical Sciences Building (655), Room 326

LBS 705 Developmental Neuroscience
3 hours; 3 credits
The development of biological systems with particular attention to the development of the nervous system in organisms ranging from drosophila through vertebrates. Pattern formation and mechanistic solutions for particular neuronal functions from an evolutionary perspective. Phenotypic variation and evolutionary adaptability expressed on cellular and molecular levels. A research paper is required.
Prerequisite: NSM 701

LBS 707 Developmental Neuroscience
3 hours; 3 credits
An introduction to neuroscience through lectures, readings, and demonstrations with emphasis on the components of the field and the important techniques used for studying the brain and brain-related phenomena. A research paper is required.
Prerequisites: Admission into the program or permission of the instructor and one of three graduate courses: biology, psychology, or philosophy.

LBS 708 Behavioral Genetics
3 hours; 3 credits
The heritability of complex psychological traits with attention to DNA structure, gene expression, Mendelian and non-Mendelian modes of inheritance, and the contribution of genetic endowment to traits such as mental retardation and other cognitive and developmental disabilities. Attention to issues such as genetic determination, genetic risk, and nature versus nurture.
Prerequisite: NSM 701

LBS 709 Foundations of Cognitive Science
3 hours; 3 credits
Experimental techniques, methodological paradigms, and prevailing theories concerning brain function and behavior. The study of perception, language, and memory and their association with understanding brain function, with attention to neuropsychological models of impaired related to developmental processes and analysis of current research paradigms in several areas.
Prerequisite: Admission to the program or permission of the instructor

NSM 701 Neurobiology I
3 hours; 3 credits
An introduction to neuroscience through lectures, readings, and demonstrations with emphasis on the components of the field and the important techniques used for studying the brain and brain-related phenomena. A research paper is required.
Prerequisites: Admission into the program or permission of the instructor and one of three graduate courses: biology, psychology, or philosophy.

NSM 702 Neurobiology II
3 hours; 3 credits
Selected topics concerning functional brain anatomy and mechanisms regulating the activity of nerve cells and their development in organisms ranging from drosophila through vertebrates. Biochemical characterization of components and of processes occurring in the nervous system. Cellular events involved in learning and memory. The molecular basis of diseases of the central nervous system. A research paper is required.
Prerequisite: NSM 701

NSM 703 Mental Retardation and Developmental Disabilities I
3 hours; 3 credits
Major issues in mental retardation and developmental disabilities, including the history of the field, definitions of relevant conditions (in principle and in practice), causes of mental retardation and developmental disabilities, epidemiology, description of the currently affected population, prevention, treatment, significant secondary disabilities (including problems of behavioral and psychiatric conditions), determination of support needs, and state-of-the-art research strategies.
A term paper is required.
Prerequisite: Admission into the program or permission of the instructor

NSM 704 Mental Retardation and Developmental Disabilities II
3 hours; 3 credits
Current issues in mental retardation and developmental disabilities, which include the assessment of concepts and methods and their impact on public health, the determination of treatment efficacy, worldwide and U.S. perspectives on treatment and prevention, the impact of postmodern thinking.
Prerequisite: Admission into the program or permission of the instructor

NSM 705 Journal Seminar I-IV
1 hour; 0 credits
Reading and analysis of classical and current scientific papers in biology and psychology related to mental retardation and developmental disabilities. Student presentations: at least one per student each semester, slide preparation, data presentation, and computer methods, including spreadsheets and software.
Prerequisite: Admission into the program

NSM 706 Research Methods
3 hours; 3 credits
Methods of studying the nervous system at different levels of organization, including investigating the properties of neurons using electrophysiological, tissue culture, and staining procedures. Methods of studying behavior: Ethical issues of experimenting with animal and human populations. Model systems used to evaluate functional relationships between different types of cells, structures, areas of brain, and populations will be emphasized. A research paper is required.
Prerequisite: Admission into the program or permission of the instructor

NSM 707 Developmental Neuroscience
3 hours; 3 credits
The development of biological systems with particular attention to the development of the nervous system in organisms ranging from drosophila through vertebrates. Pattern formation and mechanistic solutions for particular neuronal functions from an evolutionary perspective. Phenotypic variation and evolutionary adaptability expressed on cellular and molecular levels. A research paper is required.
Prerequisite: NSM 701

NSM 708 Behavioral Genetics
3 hours; 3 credits
The heritability of complex psychological traits with attention to DNA structure, gene expression, Mendelian and non-Mendelian modes of inheritance, and the contribution of genetic endowment to traits such as mental retardation and other cognitive and developmental disabilities. Attention to issues such as genetic determination, genetic risk, and nature versus nurture.
Prerequisite: NSM 701

NSM 709 Foundations of Cognitive Science
3 hours; 3 credits
Experimental techniques, methodological paradigms, and prevailing theories concerning brain function and behavior. The study of perception, language, and memory and their association with understanding brain function, with attention to neuropsychological models of impaired related to developmental processes and analysis of current research paradigms in several areas.
Prerequisite: Admission to the program or permission of the instructor

NSM 710 Learning
3 hours; 3 credits
Theories of learning with representative studies and applied behavior analysis, with attention to learning impairments in individuals with mental retardation and developmental disabilities. Introduction to advanced behavioral preparations designed to assess learning, with special emphasis on learning impairments related to mental retardation and developmental disabilities. Basic process and animal models of impairment related to developmental processes and analysis of current research paradigms in several areas.
Prerequisite: Admission to the program or permission of the instructor

NSM 799 Master's Thesis I
3 hours per credit; up to 3 credits a semester, for a total of up to 6 credits per semester.
Prerequisites: NSM 706, NSM 702, and NSM 705
Pre- or corequisite: BID 605 and NSM 705

NSM 799 Master's Thesis II
5 hours per credit; up to 5 credits a semester, for a total of up to 6 credits per semester.
Prerequisites: NSM 706, NSM 702, and NSM 795
Pre- or corequisite: BID 605 and NSM 705
Admission Requirements
A master's degree in nursing and master's-level courses in pathophysiology, health assessment, and pharmacology are required. Candidates who do not have the required master-level courses may take them before beginning the required Nurse Practitioner coursework.

Certificate Requirements
The certificate requires 12-21 credits with a minimum of 500 supervised hours toward development of Nurse Practitioner competencies and satisfactory demonstration of Nurse Practitioner competencies. The number of credits required is derived from the Nurse Practitioner courses listed below (12 credits) and those master's-level courses specified in the admission requirements that were not taken prior to admission. These certificates prepare nurses who have master's degrees in nursing to meet the requirements for certification as Adult or Gerontological Nurse Practitioners of New York State and the American Nurses Credentialing Center.

Required Nurse Practitioner Courses

<table>
<thead>
<tr>
<th>Course No</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>DNS 725</td>
<td>Primary Health Care with Young and Middle-aged Adults</td>
</tr>
<tr>
<td>DNS 726</td>
<td>Primary Health Care with Older Adults</td>
</tr>
<tr>
<td>DNS 727</td>
<td>Role Practicum: Primary Health Care</td>
</tr>
<tr>
<td>DNS 728</td>
<td>Role Practicum: Primary Health Care III</td>
</tr>
<tr>
<td>DNS 729</td>
<td>Role Practicum: Adults in Acute Care Settings</td>
</tr>
<tr>
<td>DNS 735</td>
<td>Electives (6 credits)</td>
</tr>
</tbody>
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Electives (0 credits)

- Students who choose the CNS/NP option are required to complete the following:
- Clinical Nurse Specialist (CNS) Courses: 42 credits
- Post-Master's Advanced Certificate in Adult Nursing and Post-Master's Advanced Certificate in Gerontological Nursing
- Post-Master's Advanced Certificate in Adult Nursing
- The Department of Nursing offers a Post-Master's Advanced Certificate in Adult Health Nursing and a Post-Master's Advanced Certificate in Gerontological Nursing. These certificates prepare nurses who have master's degrees in nursing to meet the requirements for certification as Adult or Gerontological Nurse Practitioners of New York State and the American Nurses Credentialing Center.

Students in the two certificate programs take the same courses but focus their course assignments and clinical hours on the population of choice—adults across the life span (adult health nursing) or older adults (gerontological nursing). The MS degree programs have two options: Clinical Nurse Specialist (CNS) and Clinical Nurse Specialist/Nurse Practitioner (CNS/NP).

These programs are designed to meet health care workforce needs and to provide opportunities for graduate-level education. The program requirements are consistent with the Clinical Nurse Specialist (CNS) competencies published by the National Association of Clinical Nurse Specialists, and the Nurse Practitioner (NP) competencies published by the Division of Nursing, U.S. Department of Health and Human Services. Nurses who successfully complete the programs are prepared to meet the needs of culturally diverse individuals, families, and communities and will have a competitive edge in the changing environment of health care.

The questions of clinical role practitioners will collaborate with agency preceptors to guide students’ program in clinical settings.

Degree Requirements
Clinical Nurse Specialist (CNS) Option: 42 credits
The program requires 42 credits with 500 supervised hours toward development of clinical competencies for specialty practice, and a thesis option. Students may attend on a full-time or part-time basis. Completion of the program requires a minimum of one and a half years of full-time study; part-time study may take three years or more. Requirements include a graduate core of 15 credits, an advanced practice core of nine credits, specialty (CNS role) courses of 12 credits, and six credits of elective courses. Three of the elective credits may satisfy the thesis option.

Clinical Nurse Specialist/Nurse Practitioner (CNS/NP) Option: 48-54 credits
The program requires 48-54 credits with a minimum of 500 supervised hours in addition to the 500 hours required in the CNS program. In these additional clinical hours, students focus on the development of nurse practitioner competencies that do not overlap with CNS role competencies. Completion of the CNS/NP option requires a minimum of two years of full-time study; part-time study may take four years or more.

Requirements include the same graduate core of 15 credits, advanced practice core of nine credits, and specialty (NP role) courses of 12 credits as for the CNS program. An additional 12 credits of specialty (NP role) courses are required to fulfill the minimum number of credits for the Nurse Practitioner option. Students who take elective courses with the CNS/NP option will graduate with more than 48 credits.
Nursing, Adult Health (MS)/Gerontology (MS) 58

and research studies are critically appraised for utilization in various practice and management settings. Future directions of transactive care are discussed.

Prerequisites: Matriculated or non-matriculated status in the graduate program

NRS 701 Theoretical Foundations for Advanced Practice Nursing

3 hours; 3 credits

This course explores the theoretical basis of advanced practice nursing through analysis of nursing's extant models and theories that contribute to nursing's unique body of knowledge. Emphasis is placed on nursing's metaparadigm concepts, person-environment-health-nursing. The dialectical process between theory, research, and practice is examined. The value of theory-based practice, including the sharing of knowledge with other disciplines, is discussed as foundational for Advanced Practice Nursing.

Prerequisites: Matriculated or non-matriculated status in the graduate program

NRS 702 Advanced Health Assessment

3 hours; 3 credits

This course prepares students to develop advanced competencies in health assessment (health histories and health examinations), to analyze data, and to write clinical decisions.

Prerequisites: College-level course in health assessment/physical examination or the equivalent; matriculated or non-matriculated status in the graduate program

NRS 703 Teaching and Learning for Cultural Competence Development

3 hours; 3 credits

This course builds on the foundational philosophy, ethics, concepts, skills, theory, research, and practices underlying the development of cultural competence in health care. The multidimensional process of teaching and learning cultural competence is presented as an organizing framework for advancing cultural competence development. Strategies and techniques for helping culturally diverse nurses, other health professionals, and health organizations develop cultural competence are critically appraised for utilization in various practice, management, and educational settings. Eliminating health disparities through the creative use of culturally competent client education is emphasized. Future directions for advancing cultural competence development are discussed.

Prerequisites: NRS 700 Transcultural Concepts and Issues in Healthcare or equivalent; permission of instructor or Foundation for Cultural Competence in Nursing (EEU)

NRS 704 Cultural Competence in Nursing: Project Development

3 hours; 3 credits

This course will assist learners to develop a “cultural competence in nursing” project. The project can be directed toward client, community, agencies, nursing organizations, nursing personnel, or nursing education, and must relate to the overall goal of eliminating health disparities. The course also emphasizes measurement and evaluation of project outcomes.

Prerequisites: NRS 703 Teaching and Learning for Cultural Competence Development

NRS 705 Health Organizations, Policy, Financing, and Ethics

3 hours; 3 credits

This course synthesizes knowledge about health care systems as established social institutions. Emphasis will be on an examination of the health care delivery system, current issues in the policy arena, and trends associated with health care, including finance and resource allocation. Current legislative initiatives related to health care and the implications of these will be fully explored. Ethical issues will be a recurrent theme.

Prerequisites: Matriculated or non-matriculated status in the graduate program

NRS 710 Collaborative Research for Advanced Practice Nursing

3 hours; 3 credits

This course is designed to prepare the student to achieve intermediate proficiency in the use of the research process and in the art of critique, and to function as a member of a collaborative research team. Representative topics are selected to provide a comprehensive basis for developing these proficiencies. A research proposal will be developed.

Prerequisites: MTI 115 or equivalent, NRS 521 or equivalent

Pre- or corequisites: NRS 700 and NRS 701

NRS 711 Health Care Program Development

3 hours; 3 credits

This course focuses on development of programs for populations with special health care needs. Students develop the ability to conduct a needs assessment, document health care needs, develop and describe a health care program, plan evaluation strategies for process and outcomes, and write grant proposals to obtain funding. Existing health care programs for medically underserved populations are used as examples.

NRS 712 Nurse as Educator

3 hours; 3 credits

This course addresses principles and methods related to nursing education, including learning theories and teaching techniques used for the education of registered professional nurses, other health care personnel, patients, and families. Students apply methods and techniques for classroom and clinical teaching with emphasis on development of a class, goals, objectives, and methods of evaluation.

NRS 720 Advanced Practice Nursing with Adults in Community Settings

3 hours; 3 credits

This course addresses integration of theory, research, and practice related to health promotion and disease prevention of healthy, chronically ill, and disabled adults, their families, and communities.

Prerequisites: Matriculated status in the program; NRS 702 and NRS 710

Corequisites: NRS 695, NRS 692

NRS 721 Role Practicum: Adults in Community Settings

12 hours; 3 credits

This precepted practicum course provides for application of theories and research to health promotion and disease prevention of healthy, chronically ill, and disabled adults from culturally diverse backgrounds, their families, and communities.

Comparable: NRS 720

NRS 722 Advanced Practice Nursing with Adults in Acute Care Settings

12 hours; 3 credits

This course focuses on the caring and healing process in adults with acute illness, and its impact on their families and communities. Theories of crisis, stress, and psychologic coping are integrated with advanced technology. Research findings related to acute care of adults are identified and evaluated. Students develop theories and research to their chosen specialization in adult acute care nursing.

Prerequisites: Matriculated status, NRS 702

Corequisites: NRS 682, NRS 721

NRS 723 Role Practicum: Adults in Acute Care Settings

12 hours; 3 credits

A clinical course for the application of knowledge and skills related to nursing care of acutely ill adults from culturally diverse backgrounds. The selection of clinical placements varies according to the specializations of students in each group.

Pre- or corequisites: BID 510, NRS 682, NRS 722

NRS 724 Case Management for Advanced Practice Nursing

3 hours; 3 credits

Focus on responsibilities of advanced practice nurses in changing health care systems, especially provision of high-quality health care at minimal cost to populations with special needs. Practice roles of nurses are emphasized for selection, implementation, and evaluation of interventions for targeted populations. As a case manager, the clinical nurse specialist uses clinical and technical expertise to develop standardized care processes, establish outcomes, identify variances, assess transitional levels of care, and assist patients in planning and change.

Prerequisites: Matriculated or non-matriculated status in the MS degree program or permission of the instructor

NRS 725 Primary Health Care with Young and Middle-Aged Adults

3 hours; 3 credits

This course focuses on health promotion, health protection, and health restoration with young and middle-aged adults experiencing acute and chronic illnesses. Differential diagnosis and treatment of chronic health problems and human responses. The partnership model of working with consumers is emphasized and cultural aspects of living with acute and chronic illnesses are explored. Research findings and relevant theories for advanced practice nursing with young and middle-aged men and women are addressed.

NRS 726 Primary Health Care with Older Adults

3 hours; 3 credits

Health promotion, health protection, and health restoration of older adults experiencing acute and chronic illnesses. Differential diagnosis and treatment of common health problems and human responses. The partnership model of working with consumers is emphasized and cultural aspects of living with acute and chronic illnesses are explored. Research findings and relevant theories for advanced practice nursing with older men and women are addressed.

NRS 727 Role Practicum: Primary Health Care I

12 hours; 3 credits

A clinical course addressing health promotion, health protection, and health restoration of adults experiencing acute and chronic health problems. Providers with preceptor supervision, students perform differential diagnosis and treatment of common health problems, including prescription of drugs and other medical interventions. Students use nursing theories and research in the Nurse Practitioner (NP) role to diagnose human responses, plan to meet positive health outcomes, and conduct nursing interventions.

Pre- or corequisites: NRS 720, NRS 721, NRS 722, NRS 725, NRS 726

NRS 728 Role Practicum: Primary Health Care II

12 hours; 3 credits

A clinical course addressing health promotion, health protection, and health restoration of adults experiencing acute and chronic health problems. With preceptor supervision, students perform differential diagnosis and treatment of common health problems, including prescription of drugs and other medical interventions. Students use nursing theories and research in the Nurse Practitioner (NP) role to diagnose human responses, plan to meet positive health outcomes, and conduct nursing interventions.

Pre- or corequisites: NRS 720, NRS 721, NRS 722, NRS 725, NRS 726

NRS 730 Research Utilization for Advanced Practice Nursing

3 hours; 3 credits

This course is designed to assist students in the development of intermediate skills in research utilization as they apply to adult health. Research utilization models, barriers to research utilization, evidence-based practice, statistical methods, and strategies for research utilization will be explored. Students will identify a practical problem and develop proposals to implement research findings into their chosen practice setting. The research utilization project is the capstone experience.

Prerequisite: NRS 710

NRS 799 Thesis Option

3 hours; 3 credits

The purpose of this seminar course is to individually guide students in applying the steps of the research process in actual settings. The process culminates in the presentation of findings as a written thesis. The course is graded Pass/Fail.

Prerequisites: NRS 710, matriculated status, permission of the program coordinator

Physical Therapy Program 99

Coordinator: Professor Jeffrey Rothman, Engineering Technologies-East Building (SN), Room 220

Effective for the 2006 spring semester, the Physical Therapy program will offer the Doctorate in Physical Therapy (DPT). This new program will replace the combined BS/MS degree program in Physical Therapy. The DPT program is a collaboration between the College of Staten Island and the Graduate Center of The City University of New York (CUNY). To access comprehensive information on the DPT, including admissions requirements, curriculum, and all pertinent information please go to the following link:
Doctoral Programs

The deadline for admission into the College for the spring semester is January 15. Applicants who complete their application by January 15 will be given priority in the admission process. To be considered for admission, all applicants must submit the following:

1. Application fee
2. Official transcripts from all college courses
3. Three letters of recommendation
4. A statement of purpose
5. Evidence of research experience and/or research proposal
6. Three research papers (for applicants with a master's degree)
7. A statement of research goals
8. Three research papers (for applicants without a master's degree)
9. Evidence of academic achievements

For applicants who have not studied in English-speaking environments, a test score from the Test of English as a Foreign Language (TOEFL) is required. TOEFL scores should be at least 550 on the paper-based test (PBT), 213 on the computer-based test (CBT), or 80 on the internet-based test (iBT). The Graduate school does not allow substitution of the test scores with other forms of evidence.

Doctoral Programs

Doctoral Program in Computer Science

The College participates in several doctoral programs with the CUNY Graduate School and University Center. Please consult the Graduate Center Catalog for complete information on admissions and programs.

Doctoral Program in Biology (Neuroscience)

The College participates with the Graduate School and University Center and with the New York State Institute for Basic Research in Developmental Disabilities, in offering a Ph.D. program in Biology with a specialty in Neuroscience. The program is designed to give the student a broad background in neuroscience in addition to specific advanced coursework in areas of neuroscience of special interest to the student. Students are admitted to the program by the Graduate School and University Center.

Doctoral Program in Psychology Learning Processes

The College participates with the Graduate School and University Center in the Graduate Program in Psychology Learning Processes. The program is designed to give the student a broad background in psychology of special interest to the student. Students are admitted to the program by the Graduate School and University Center.

Doctoral Program in Education

The College participates in the CUNY Graduate School and University Center's Ph.D. program in Computer Science. Students wishing to specialize in computer applications are advised to consult the Department of Computer Science of the College of Staten Island.

Doctoral Program in Mathematics

The College participates in the CUNY Graduate School and University Center's Ph.D. program in Mathematics. Students wishing to specialize in pure and applied mathematics are advised to consult the Department of Mathematics of the College of Staten Island.

Doctoral Program in Physics

The College of Staten Island is an active participant in the CUNY Doctoral program in Physics. Students in this program are admitted through the Graduate School and University Center (365 Fifth Avenue, New York; 1.212.817.7470; email: admissions@gc.cuny.edu; www.gc.cuny.edu) and are advised to consult Dr. Bertram Ploog in the Department of Physics at CSI.

Doctoral Program in Chemistry

The College participates in the CUNY Graduate School and University Center's Ph.D. program in Chemistry. Students wishing to specialize in polymer chemistry are advised to consult Dr. Nan-Loh Yang, Department of Chemistry at CSI.

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### Physical Therapy DPT Curriculum at the College of Staten Island

**Fall Semester, Year 1 (15 weeks)**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
<th>Class Hours</th>
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<tbody>
<tr>
<td>PHT 71000 Clinical Anatomy</td>
<td>4</td>
<td>11</td>
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<tr>
<td>PHT 7000 Medical Terminology</td>
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<tr>
<td>PHT 7030 Foundations of PT Care</td>
<td>2</td>
<td>5</td>
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<tr>
<td>PHT 7040 Introduction to PT Practice</td>
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<td>2</td>
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<tr>
<td>PHT 7050 Upper Extremity Kinesiology &amp; Assessment</td>
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<tr>
<td>PHT 7060 Physiological Aspects of Clinical Practice</td>
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**Total Credits:** 15

**Summer Semester, Year 1 (8 weeks)**

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<th>Course Name</th>
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<tr>
<td>PHT 70100 Human Physiology &amp; Exercise Physiology</td>
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<td>4</td>
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<tr>
<td>PHT 71000 Research Design</td>
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**Total:** 6

**Spring Semester, Year 2 (15 weeks)**

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<tr>
<th>Course Name</th>
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<tr>
<td>PHT 80100 Introduction to Neurological PT</td>
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<td>5</td>
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<tr>
<td>PHT 80200 Clinical Education: Organization and Intervention</td>
<td>2</td>
<td>3</td>
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<tr>
<td>PHT 80300 Differential Diagnosis</td>
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<td>3</td>
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<tr>
<td>PHT 80400 Introduction to Physical Therapy Practice &amp; Ethics</td>
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**Total Credits:** 6

**Summer Semester, Year 2 (2 weeks)**

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<th>Course Name</th>
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<td>PHT 88700 Clinical Decision Making</td>
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<td>PHT 88800 Research Seminar IV</td>
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**Total Credits:** 2

**Fall Semester, Year 3 (15 weeks)**

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<tr>
<td>PHT 85000 Musculoskeletal Examination II</td>
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<td>PHT 86000 Research Seminar III</td>
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<tr>
<td>PHT 87000 Health Promotion through the Lifespan</td>
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**Total Credits:** 16

**Summer Semester, Year 3 (10 weeks)**

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<tr>
<th>Course Name</th>
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<tr>
<td>PHT 88200 Pediatrics</td>
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<td>PHT 88100 Seminar in Departmental Education Theories</td>
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<td>PHT 88000 Research Seminar V</td>
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**Total Credits:** 15

**Spring Semester, Year 4 (15 weeks)**

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<tr>
<td>PHT 90000 Clinical Affiliation IV</td>
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**Total Credits:** 12

**Summer Semester, Year 4 (8 weeks)**

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<th>Course Name</th>
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<tr>
<td>PHT 90000 Clinical Affiliation V</td>
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**Total Credits:** 20

**Fall Semester, Year 5 (15 weeks)**

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<tr>
<td>PHT 90000 Research Seminar V</td>
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<td>1</td>
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<tr>
<td>PHT 90000 Clinical Affiliation V</td>
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<td>9 weeks</td>
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**Total Credits:** 30

**Summer Semester, Year 5 (10 weeks)**

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<td>PHT 98000 Clinical Affiliation II</td>
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<td>10 weeks</td>
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<tr>
<td>PHT 98000 Clinical Decision Making</td>
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<td>Online</td>
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<tr>
<td>PHT 98000 Research Seminar IV</td>
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<tr>
<td>PHT 98000 Research Seminar V</td>
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<td>10 weeks + Online or CE</td>
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**Total Credits:** 7

**Total Credits: 134**

**APTA** refers to the Institute of Physical Art.

**Advanced Clinical Practice Courses.**

**Coursework**

<table>
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<tr>
<td>PHT 70100 Clinical Anatomy</td>
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<tr>
<td>PHT 70200 Medical Terminology</td>
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</tr>
<tr>
<td>PHT 70300 Foundations of Patient Care</td>
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**Spring Semester, Year 2 (15 weeks)**

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<td>PHT 80400 Introduction to Physical Therapy Practice &amp; Ethics</td>
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<td>Online</td>
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**Total Credits:** 6

**Summer Semester, Year 2 (2 weeks)**

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<tr>
<td>PHT 88700 Clinical Decision Making</td>
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<tr>
<td>PHT 88800 Research Seminar IV</td>
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**Total Credits:** 2

**Fall Semester, Year 3 (15 weeks)**

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<tr>
<td>PHT 88100 Seminar in Departmental Education Theories</td>
<td>3</td>
<td>3</td>
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<tr>
<td>PHT 88000 Research Seminar V</td>
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**Total Credits:** 15

**Spring Semester, Year 4 (15 weeks)**

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<tr>
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<tr>
<td>PHT 90000 Clinical Affiliation IV</td>
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<td>9 weeks</td>
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**Total Credits:** 12

**Summer Semester, Year 4 (8 weeks)**

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**Total Credits:** 20

**Fall Semester, Year 5 (15 weeks)**

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<tr>
<td>PHT 90000 Clinical Affiliation V</td>
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**Total Credits:** 30

**Summer Semester, Year 5 (10 weeks)**

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<td>PHT 98000 Clinical Affiliation II</td>
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<tr>
<td>PHT 98000 Clinical Decision Making</td>
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<td>Online</td>
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<td>PHT 98000 Research Seminar IV</td>
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<tr>
<td>PHT 98000 Research Seminar V</td>
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<td>10 weeks + Online or CE</td>
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**Total Credits:** 7
Doctoral Programs

PHT 77000 Research Seminar I
60 hours, 2 credits
To provide students with the basic patterns of research from review of the literature to the design of multiple variable research involved in the clinical physical therapy environment. This required course provides a foundation that is designed to provide the student with the tools necessary to formulate a research proposal and prepare a proposal for IRB review.
Prerequisites: PHT 71000, PHT 70200

PHT 78000 Clinical Medicine
45 hours, 3 credits
This course provides an overview of disease and injury with an emphasis on conditions encountered in physical therapy. This required course provides a foundation that is designed to provide the student with information related to etiology, development, clinical manifestations, and consequences of the disease in the area of clinical medicine.
Prerequisites: PHT 71000, PHT 70200

PHT 79500 Integumentary System: Assessment & Intervention
15 hours, 1 credit
The course focuses on evaluation and management of patients with integumentary dysfunction. This required course provides a foundation that is designed to provide the student with competency in the area of integumentary care.
Prerequisites: PHT 71000, PHT 70200

PHT 79700 Colloquium Elective
10 hours, 1 credit
This elective will provide students with the opportunity to enroll in an intense clinically based course presented by an expert in physical therapy. This required course is the required curriculum in an area of physical therapy practice.
Prerequisites: PHT 71000, PHT 70200

PHT 80100 Pulmonary Evaluation and Interventions
60 hours, 2 credits
The course is designed to promote clinical reasoning skills in the examination, assessment, and intervention of patients with pulmonary dysfunctions. This required course provides a foundation for evaluation and intervention for patients with respiratory conditions.
Prerequisites: PHT 71000, PHT 70200

PHT 80200 Clinical Education: Education Theories
30 hours, 2 credits
The course is designed to introduce the student to the principles and theories of educational strategies. This required course provides a foundation for clinical internship experiences.
Prerequisites: PHT 71000, PHT 70200

PHT 80300 Differential Diagnosis & Intervention in Orthopedics
45 hours, 2 credits
This course is designed to promote clinical reasoning skills in the examination and intervention of patients with orthopedic dysfunctions. This required course is one of a sequence of courses that provides an advanced component of the sequential curriculum that is designed to provide the student with competency in the treatment of patients with orthopedic dysfunctions.
Prerequisites: PHT 73000, PHT 76000

PHT 80400 Introduction to Neurologic PT
60 hours, 2 credits
Foundations, examination, and interventions for the treatment of disorders of the central nervous system. This required course is one of a sequence of courses that provides an advanced component of the sequential curriculum that is designed to provide the student with competency in the treatment of patients with CNS movement dysfunctions.
Prerequisites: PHT 73000, PHT 76000

PHT 80500 Musculoskeletal Examination I
75 hours, 3 credits
Description: Basic examination techniques utilizing selective tissue tension tests will be applied to clarify common lower extremity orthopedic diagnoses. This required course is the first in a series of three courses for musculoskeletal examination and intervention that is designed to provide the student with the ability to evaluate musculoskeletal disorders.
Prerequisites: PHT 4000, PHT 76000

PHT 80600 Clinical Affiliation I
6 weeks full-time, 3 credits
A clinical internship in an acute care hospital setting. Under the supervision of a licensed physical therapist, the student will integrate and apply coursework to provide quality care in the evaluation and treatment of patients with a variety of diagnoses. This required course provides a foundation that is to provide the student with clinical experience.
Prerequisites: PHT 80100, PHT 81000

PHT 80700 Proprioceptive Neuromuscular Facilitation
45 hours, 1 credit
The historical and theoretical framework of Proprioceptive Neuromuscular Facilitation (PNF) will serve as the foundation for learning these special exercise techniques. This required course is one in a sequence of three courses for musculoskeletal examination and intervention that is designed to provide the student with the competency in the area of therapeutic exercises.
Prerequisites: PHT 80500

PHT 80800 Differential Diagnosis in Neurological Evaluation
45 hours, 1 credit
A system of testing peripheral, central, and autonomic nervous system function will be presented with an emphasis on specificity and sensitivity of the tests. This required course provides the student with the competency in the area of testing individuals with peripheral and/or central nervous system dysfunctions.
Prerequisites: PHT 80600

PHT 80900 Research Seminar II
1 hour/week Independent Study, 1 credit
Complete the application need for the Institutional Review Board of Hunter College or the College of Staten Island. Data collected from data collection and completion or research results. This required course provides the student with the ability to implement the proposed research project.
Prerequisites: PHT 80600

PHT 81000 Neurological Interventions I
75 hours, 3 credits
This course includes a description of the principles of rehabilitation, etiology of spinal cord injury and traumatic brain injury, anatomical and physiological considerations, and understanding of special problems faced by adults with physical disabilities, evaluation and treatment techniques, an understanding of adapted equipment and wheelchair evaluation, the home environment, and appropriate modifications. This required course provides a foundation that is designed to provide the student with the ability to perform examination, evaluation, and intervention for patients with spinal cord injury and traumatic brain injuries.
Prerequisites: PHT 80800, PHT 80900

PHT 81100 Cardiac Rehabilitation
60 hours, 2 credits
The physical therapy management of individuals with cardiovascular dysfunction is covered in this course. Physical therapy evaluation and treatment approaches for cardiac patients. This required course provides continuation of the sequence of evaluation and intervention for patients with cardiovascular conditions.
Prerequisites: PHT 73000, PHT 71000

PHT 82000 Clinical Orthopedics I/Radiography and Imaging
30 hours, 2 credits
Etiology and therapeutic management of selected orthopedic conditions of the upper extremity and introduction to radiology and imaging. This course provides a foundation that is designed to provide the student with the ability to perform examination, evaluation, and intervention for upper extremity joints in the musculoskeletal system, and an introduction to radiology and imaging.
Prerequisites: PHT 80800, PHT 80900

PHT 85000 Orthotics & Prosthetics
30 hours, 2 credits
This course is designed to orient the student to the role and responsibilities of the physical therapist in the field of prosthetics and orthotics. This required course is designed to provide the student with competency in the postoperative management of the amputee and prosthetic and orthotic application in individuals requiring rehabilitation.
Prerequisites: PHT 80600, PHT 80700, PHT 80800

PHT 87000 Health Promotion through Lifespan Development
30 hours, 2 credits
This course defines the role of physical therapy in health promotion, wellness, and fitness. This required course provides competency in the area of health promotion and wellness.
Prerequisites: PHT 80800, PHT 80700, PHT 80800

PHT 88000 Neurological Interventions II
45 hours, 2 credits
This course is designed to provide information and develop skills to manage an organized physical therapy service. This required course provides a foundation that is designed to provide the student with the skills and knowledge necessary to manage a physical therapy service.
Prerequisites: PHT 81000, PHT 80600, PHT 80700

PHT 88200 Pediatric Development and Assessment
45 hours, 2 credits
Through lectures, laboratory experiences, discussions, videos, and assignments, the student will be able to examine and understand normal and abnormal human development, and theory and practice of physical therapy intervention in developmental disabilities. This required course provides a foundation that is designed to provide the student with the competency and skills to evaluate and treat an infant or child with motor dysfunction.
Prerequisites: PHT 81000, PHT 84000

PHT 88500 Electronuromyography and Motion Analysis
30 hours, 2 credits
This course provides the student with the physiological basis and techniques of the electromyographic evaluation of the neuromuscular system through the use of nerve conduction studies and needle electromyography. This required course is one in the sequence of

PHT 88600 Research Seminar III
35 hours, 1 credit
Students will complete a research project and prepare for a publishable manuscript following protocol in the Guide for Authors. Progress toward completion of a publishable research project. This required course provides a foundation that is designed to provide the student with the ability to complete a research project and prepare a publishable research manuscript.
Prerequisites: PHT 80900

PHT 87000 Health Promotion through Lifespan Development
30 hours, 2 credits
This course defines the role of physical therapy in health promotion, wellness, and fitness. This required course provides competency in the area of health promotion and wellness.
Prerequisites: PHT 80800, PHT 80700, PHT 80800

PHT 88000 Neurological Interventions II
45 hours, 2 credits
Foundations, assessment procedures, and application of the clinical therapeutic exercise with a neuromuscular basis for the treatment of adult and pediatric neurological conditions, with emphasis on the techniques taught by the Bobath (NDT). This required course is one in a sequence of courses designed to provide the student with competency in the area of treating clients with CNS movement dysfunctions.
Prerequisites: PHT 81000

PHT 88100 Seminar on Organization and Management
45 hours, 3 credits
This course is designed to provide information and develop skills to manage an organized physical therapy service. This required course provides a foundation that is designed to provide the student with the skills and knowledge necessary to manage a physical therapy service.
Prerequisites: PHT 81000, PHT 80600, PHT 80700

PHT 88200 Pediatric Development and Assessment
45 hours, 2 credits
Through lectures, laboratory experiences, discussions, videos, and assignments, the student will be able to examine and understand normal and abnormal human development, and theory and practice of physical therapy intervention in developmental disabilities. This required course provides a foundation that is designed to provide the student with the competency and skills to evaluate and treat an infant or child with motor dysfunction.
Prerequisites: PHT 81000, PHT 84000

PHT 88500 Pharmacology and Systems Review
45 hours, 3 credits
This course provides an overview of previously covered physiology and pathophysiology of different body systems and provides a rationale for the use of drugs and other available treatment in different diseases. This required course provides a foundation that is designed to provide the student with competency in the area of pharmacology.
Prerequisites: PHT 80100, PHT 80900

PHT 88600 Musculoskeletal Examination III
75 hours, 3 credits
Advanced management of the spine including selective tissue testing techniques. This required course is the third in a series of three courses for musculoskeletal examination and intervention.
Prerequisites: PHT 80600, PHT 80700

PHT 88800 Electromyography and Motion Analysis
45 hours, 2 credits
This course provides the student with the physiological basis and techniques of the electromyographic evaluation of the neuromuscular system through the use of nerve conduction studies and needle electromyography. This required course is one in the sequence of
Courses in Selected Disciplines

required courses that provides an advanced component of the sequential curriculum to provide the student with competency in neuromotor evaluations.

Prerequisites: PHT 88000, PHT 84000

PHT 88600 Clinical Affiliation II 10 weeks, 5 credits

This seminar will bring students together to integrate clinical affiliation through case studies, case scenarios, administrative issues, and the resolution of conflict within the workplace. This required course provides a foundation for the student to resolve conflict, and plan effective critical decisions in the clinic and administrative environments.

Prerequisites: PHT 88000 - Neurological Interventions II and PHT 88300 - Pediatrics

PHT 887200 Clinical Decision Making 1 week, 1 credit

This course will provide students with the opportunity to practice implementing the research project at the locations designated and start data collection once all IRB approval(s) are in hand. This required course provides a foundation that is designed to provide the student with skills to conduct and report research, both written and orally.

Prerequisites: PHT 88000 - Research Topics IV

Topics Courses and Independent Study Graduate courses are also offered as topics courses and as independent study. These courses are identified by the ALPHAS designation for the discipline and an 800 number.

Graduate Topics in XYZ 105 hours, 5 credits

Independent Study in XYZ 90 hours, 5 credits

Topics Courses and Independent Study (See the Schedule of Classes each semester for course offerings.)

Graduate Courses in Selected Disciplines In addition to courses listed under a degree program, a number of courses have been designed specifically for teachers, particularly those educators who teach at the high school level. Graduate courses in disciplines outside the major field may also be of interest to students in fields other than education.

American Studies

AMS 661 Education and American Society 3 hours, 3 credits

The development of educational thought and practice in the United States. The school and other educational agencies viewed as cultural institutions affected by and shaping the political, economic, and social character of the nation.

Art

ART 895 Independent Study in Contemporary Painting 5 hours, 5 credits

The course is concerned with the techniques and theories of contemporary painting in its form as the modern heritage of Cezanne and Cubism and is intended for advanced painters. Prerequisite: BA or BS with an art major; IEA, permission of the instructor.

Biology

BIO 602 Evolution for Secondary School Teachers 4 hours, 4 credits

A course dealing with evolution as it is understood today. It will cover the origin and evolution of the universe and life on Earth. Both the mechanisms of evolution and its historical record will be examined. Discussion of social, philosophical, and biological implications of evolution. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 610 Genetics for Secondary School Teachers 4 hours, 4 credits

A study of the mechanical and molecular basis of inheritance. This course will discuss patterns of inheritance including linkage and dosage mapping, cytogenetics, molecular genetics, and non- Mendelian inheritance; the nature of the gene, and the history of the foremost ideas in genetics. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 620 Molecular Biology for Secondary School Teachers 4 hours, 4 credits

This course offers a general survey of cell structure and function in molecular terms, with current concepts emphasized throughout. Topics include the role of protein-ligand interactions in cell function, gene organization and control; cell membranes and membrane transport mechanisms; cell organelles; the molecular basis of contractility; chemical recognition and response mechanisms in cells of the immune system; molecular events at chemical synapses; hormones and other chemical messengers. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 625 Developmental Biology for Secondary School Teachers 4 hours, 4 credits

Differentiation and growth of organisms from the egg to the adult, including gametogenesis, fertilization, cleavage, and morphogenesis. Emphasis is placed on vertebrate development (Amphibian and avian), selected invertebrates are also studied. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 630 Animal Physiology for Secondary School Teachers 4 hours, 4 credits

Study of the life processes of multicellular organisms including principles of homeostasis; composition of body fluids, transport processes, and neuro-endocrine mechanisms. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 640 History of Natural Science for Secondary School Teachers 4 hours, 4 credits

A course designed for teacher education students, particularly those interested in science, mathematics, and the history of ideas. The course will discuss the important scientific developments since the Renaissance. The contributions of major figures, such as Copernicus, Galileo, Kepler, Harvey van Leeuwenhoek, Priestley, Schleiden, Schwann, Darwin, and Mendel, will be included. The relationship of their ideas to modern scientific thought and the social implications of their contributions will be discussed. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 660 Evolution for Secondary School Teachers 4 hours, 4 credits

A course dealing with evolution as it is understood today. It will cover the origin and evolution of the universe and life on Earth. Both the mechanisms of evolution and its historical record will be examined. Discussion of social, philosophical, and biological implications of evolution. Prerequisite: Bachelor's degree with a major in a biological or physical science.

BIO 640 History of Natural Science for Secondary School Teachers 4 hours, 4 credits

A course designed for teacher education students, particularly those interested in science, mathematics, and the history of ideas. The course will discuss the important scientific developments since the Renaissance. The contributions of major figures, such as Copernicus, Galileo, Kepler, Harvey van Leeuwenhoek, Priestley, Schleiden, Schwann, Darwin, and Mendel, will be included. The relationship of their ideas to modern scientific thought and the social implications of their contributions will be discussed. Prerequisite: Bachelor's degree with a major in a biological or physical science.

CSC 602 Computing for Teachers I 4 hours, 4 credits

Students will be instructed in the history of computers. Basic computer hardware will be discussed. Students will become computer literate by gaining experience in using a computer application program and additional commercial software and shareware. Integration of the computer into the classroom will be addressed by discussion and demonstration of a computer lesson. A major project will be required.

CSC 702 Computing for Teachers II 4 hours, 4 credits

Emphasis will be placed on acquiring the skills to teach computer programming at the lower grade levels. Instruction will be given in LOGO and BASIC. The mathematical basis of computing will be discussed along with elementary data structures.

Prerequisite: CSC 602

Drama

DRA 601 Drama in the Schools 4 hours, 4 credits

An examination of the role of drama in both its educational and social settings. Study of the work in which drama may be used at the various levels of education—childhood through adult programs. Creative drama as a process as well as educational theater as a product. Drama as a teaching tool in the general curriculum as well as drama as a subject of aesthetic education. Prerequisite: A bachelor's degree. Undergraduates juniors and seniors may enroll with the permission of the instructor.

Environmental Science

ESC 602 Environmental Science for Elementary School Teachers 3 hours, 3 credits

The course covers the basic scientific concepts that underlie the structure and function of the biospheric ecosystem. Topics include the impacts of human activities in terms of ecology, sociopolitical aspects, economics, environmental ethics, and other topics as they relate to elementary teachers. (Not creditable toward Environmental Science Master's degree.)

Geography

GEO 601 Geography of Ordinary Landscapes 4 hours, 4 credits

Examines everyday environments. Explores physical, architectural, political, and economic conditions that shape these landscapes and their impact on cultural life.

GEO 753 U.S. Land-Use Planning and Environmental Policy (also ESC 753) 3 hours, 3 credits

This course explores contemporary American land-use and environmental planning issues in terms of their historical background, regulatory setting, cultural context, and practical politics. It focuses on specific local, regional, and national cases, and introduces students to Geographic Information Systems (GIS) as a way of analyzing land-use problems. Prerequisite: ESC 601 (Biospheres and Their Species).
COURSES IN SELECTED DISCIPLINES

History

HST 601 Intellectual History of Europe: Medieval Inheritance I
4 hours; 4 credits
Topics in medieval intellectual history (ca. 500 - 1066) to be examined include classical, Jewish, and early Christian elements in medieval thought; and the Latin, Byzantine, and Islamic contributions to the West. Important figures and institutions. Special attention will be given to the secondary authorities in the field. Reports and papers will form the basis of class discussion.

HST 603 The Classical Inheritance
4 hours; 4 credits
Various aspects of Greco-Roman history with special emphasis on the characteristic contributions of the classical world to the development of European civilization. Some previous coursework and/or reading in the history of classical antiquity is recommended.

HST 604 Tudor and Stuart History
4 hours; 4 credits
Readings in the controversial literature concerned with (1) the 16th-century administrative revolution and (2) the constitutional and social crisis of the 17th century. The emphasis will be on the political and social history of the period 1540-1640. A general knowledge of modern European history or of British literature in this period is presupposed.

HST 605 War and Society in the Modern World
4 hours; 4 credits
The history of war from the early modern period to the present. War will be studied as a social and political phenomenon. The focus will be on European rather than American experience until the 20th century is considered. A general knowledge of history is presupposed.

HST 606 Age of the French Revolution
4 hours; 4 credits
Beginning with a study of the debate over the coming of the Revolution in late 18th-century Europe, this course will go on to consider the various phases of the Revolution and to assess the effective changes within France and Europe that it brought about, the foreign wars, and the Napoleonic "synthesis." A reading knowledge of a European language, particularly French, will be helpful.

HST 625 Gender and Modern Consciousness
4 hours; 4 credits
An examination of the category of "gender" as an area illuminating the social sciences, particularly history and modern sociology, in recent scholarship.

HST 626 Historical Themes and Interpretations
(Associate EDD 626)
3 hours; 3 credits
Examination of selected themes in world history, such as nationalism, globalization, minorities and society, religion and the state, and humans and the environment. Each semester the course will focus on the development of one theme, allowing students the opportunity to deepen their interpretation through case studies, critical analysis of tests, museum work, and Internet research.

HST 700 The Russian Revolution: 1917-1991
4 hours; 4 credits
This course will examine the historiography of the 1917 Revolution and the ensuing Soviet state, the origins of Stalinism, and the various political trends in this emerging Russian historiography. Major 1991 political events in ex-Soviet Union countries will be examined as well as contemporary social movements.

Mathematics

MTH 612 Introduction to Mathematical Logic
4 hours; 4 credits
A study of classic works and current literature dealing with selected topics of 19th-century European history. There will be an effort to acquaint students with the primary sources of information as well as secondary literature. The emphasis will be on continental Europe. A reading knowledge of a European language, particularly French, will be helpful.

MTH 614 America's Origins
4 hours; 4 credits
History of the 13 British colonies, from their settlement through the Revolution. The material and ideological forces that helped to create the new nation will be examined. Among the topics to be discussed will be Puritanism, slavery, mercantilism, and the political development of the colonies. The last part of the course will examine the reasons for and consequences of the American Revolution.

MTH 624 U.S. History: 1900-1940
4 hours; 4 credits
Readings, analysis, and reports of the major historical accounts of Progressivism, World War I, the 1920s, and the New Deal period including social, political, and intellectual themes.

MTH 637 Introduction to Mathematical Modeling
4 hours; 4 credits
Prerequisite: MTH 233 or MTH 236 or permission of the department.

MTH 640 Numerical Analysis for Secondary School Teachers
4 hours; 4 credits
Solutions of equations, interpolation and approximation, and convergent, numerical difference schemes and numerical solution of initial value problems in ordinary differential equations, selected algorithms programmed for solution on computers.

MTH 651 Functions of a Complex Variable
4 hours; 4 credits
This course is open to students who have an interest in the historical development of mathematics. It is recommended that this course be taken by students who plan to teach mathematics in the high schools.

MTH 652 Geometry for Secondary School Teachers
4 hours; 4 credits
An examination of the historical origins and contemporary applications of mathematics topics selected from areas such as arithmetic computation, number theory, cryptography, graph theory, geometry, and probability. Emphasis on exploration, analysis, and problem solving. Intended for teachers who wish to extend their own knowledge of mathematics and its impact on educational practice.

MTH 653 U.S. History: 1900-1940
4 hours; 4 credits
Prerequisite: MTH 233 or MTH 236 or permission of the department.

MTH 654 Introduction to Mathematical Modeling
4 hours; 4 credits
Prerequisite: MTH 233 or MTH 236 or permission of the department.

MTH 665 Modern Algebra for Secondary School Teachers
4 hours; 4 credits
Set operations, mappings, algebraic structure, groups, rings, integral domains, division rings, fields, ideals and congruence constructions. These topics will include a discussion of the historical development of these ideas.

MTH 666 Modern Algebra for Secondary School Teachers
4 hours; 4 credits
Prerequisite: MTH 235 or MTH 236 or permission of the department.

MTH 667 Introduction to Mathematical Modeling
4 hours; 4 credits
A project-based introduction to the essential components of mathematical modeling. Using fully developed case studies and exploratory student projects, the aim is to provide a broad perspective on modeling physical, biological, and societal phenomena using modern mathematical methods. In particular, emphasis will be placed on three prototypical modeling paradigms:: paradigmatic, dynamical systems, statistical/probabilistic modeling and optimization.

Prerequisites: Differential equations and linear algebra (MTH 330 or equivalent) or mathematical probability (MTH 311) or permission of the instructor.

MTH 679 Probability Theory for Secondary School Teachers
4 hours; 4 credits
Sample spaces, combinatorial analysis, binomial Poisson and normal distributions, random variables, laws of large numbers, random walks, Markov chains, time-dependent stochastic processes, continuous sample spaces.

Prerequisite: MTH 235 or permission of the department.
MTH 681  Theory of Topology  4 hours; 4 credits  
Set theory, topology of the real line, Cauchy sequences, open sets, connected sets, limit points and closed sets, bounded sets, compactness, continuous functions, topological spaces, mappings, subspaces, homeomorphisms; metric spaces.  
Prerequisite: MTH 215 or MTH 230 or permission of the department

MTH 690  Applied Mathematics for Secondary School  4 hours; 4 credits  
An application of algebra, trigonometry, and calculus to the analysis and description of wave motion. The theory of transverse and longitudinal waves, the propagation of these waves, as well as applications to a variety of problems in nature will be studied. Applications will be chosen from the study of sound and light waves, water waves, the sound of music, traffic flow, shockwaves, and wave mechanics. Historical and cultural aspects will be stressed.  
Prerequisite: MTH 235 or MTH 230 or permission of the department

Political Science  

POL 636  The Judicial Process  3 hours; 3 credits  
A study of the powers and weaknesses of, and the checks upon, the court systems in the United States. Special attention will be given to the role of the Supreme Court and its functions in dealing with government regulation of business and in protecting minorities.

POL 643  The Russian Revolution  3 hours; 3 credits  

POL 735  American Government and Politics  4 hours; 4 credits  
A study of the structure and operations of the American political system, the process of its evolution, the philosophical principles and theories on which it rests, and the social pressures and forces operating on it.

POL 737  United States Constitution  4 hours; 4 credits  
The structures of government established by the American Constitution and the system of limited government, which is a consequence of a written constitution. The course will make extensive use of Supreme Court cases to examine branches of the national government, their relationship to each other, and the extent and limits of their powers under the Constitution, and will explore by case analysis the system of federalism established by the Constitution.

POL 741  European Government and Society  4 hours; 4 credits  
A study of the structure and operation of major European political systems, their evolution and governing principles, the social and economic context in which they operate, present-day domestic problems confronting them, including immigration and demographic changes; and such external forces as the European Union and globalization.
Appendix

Appendix i

CSI LIBRARY GUIDELINES FOR SUBMISSION OF THE MASTER’S THESIS

Students submitting their approved theses to the Library are asked to submit two copies, both of which must be signed by all members of the thesis committee, or by the program coordinator if no committee exists, on the thesis signature page. One copy will be kept in the Library archives; the other will become part of the special collections. Students wishing to copyright their theses through an official agency must make their own arrangements to do so.

Format

The two copies for the library must be printed on 8 1/2” x 11”sized, unbound white paper of 20-24 lb. weight or heavier. The paper must also meet the specification of 100% cotton content (i.e., acid free) and must not contain fibers, smudges, spots, or shaded background. Copies from a laser printer or commercial copier service are highly recommended. Copies done on departmental or self-service copy machines do not meet the Library’s high quality standard. All printing must be one side only.

Photographs, maps, charts, color copies, and some special illustrative materials may be placed, prepared, or reprinted on paper different from that of the regular text (for example, color copies on cotton paper will smudge; use paper specifically made for color copying). On either side of this special paper, students must include a blank sheet of the specified cotton, acid-free paper. Students also must place one extra sheet at the front and back of the thesis.

The following (maximum) margins must be used throughout the manuscript:

Left margins: 1.5”
Right margins: 1.0”
Bottom margins: 1.0”
Top margins: 1.0”

Material that cannot fit within regular or oversize margins requirements may be placed on 11” x 17” paper. Page numbers on these oversized pages must be placed in the upper right corner in the same position as the rest of the text. These pages are not to be folded prior to submittal. The bindery will fold them as appropriate.

Abstract

Abstracts must be double-spaced and limited to a single page with margins as described above. This page should bear the heading “Thesis Abstract.”

Submission

After a successful thesis defense the student should submit two official copies of the manuscript to the Library. The second copy will be kept in the Library archives; the other will become part of the special collections. Students wishing to copyright their theses through an official agency must make their own arrangements to do so.

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2800 Victory Boulevard

Victory Boulevard buses - St. George/Travis
S62 - frequent weekday service and service every 30 minutes on Saturdays and Sunday.
From 8:30am to 11:30pm, to the ferry, and from 7:30am to 12:20am, from the ferry; the S62 makes a stop inside the Victory Blvd. entrance to the campus.
S92 - commuter schedule from Travis every 15 minutes from 6:30am to 7:42am and from St. George every 15 minutes from 4:50pm to 6:00pm.

Richmond Avenue buses - North/South route
The Richmond Avenue and Victory Boulevard stop is two blocks from the entrance to the campus.
S44 - frequent service on weekdays and runs every 30 minutes on Saturday and Sunday.
S59 - every 30 minutes every day.

Forest Hill Road buses - South Shore/St. George route
S61 - frequent daily and weekend service.
S91 - commuter schedule weekdays.

Brooklyn buses - Port Richmond/Bay Ridge-95th Street
S53 - Bay Ridge - 95th Street/Port Richmond
Frequent weekday service; stops at Victory Boulevard for transfer to S62 or S92.

S93 - 86th Street and 4th Avenue/College of Staten Island campus
Limited service Monday-Friday
Departs 86th Street at 6:55am, 7:55am, 8:55am
Departs CSI at 3:00pm, 5:00pm, 7:00pm.

Manhattan/Staten Island Express bus
X-10 Express bus - frequent daily schedule from 57th Street and 3rd Avenue to Victory Boulevard and the return route; stops at the campus main entrance.

Call 1.718.350.1254 for information and schedules for local buses and Manhattan/Staten Island express buses.
By automobile from the Staten Island Expressway (Interstate 278):
Traveling westbound on the Staten Island Expressway from the Verrazano-Narrows Bridge, take the Victory Boulevard Exit (#10). At Victory Boulevard, turn left and continue under the Expressway and turn left into the campus at the first traffic light. Eastbound on the SI Expressway, take the Victory Boulevard Exit (88) and turn left onto Victory Boulevard, and turn right at the traffic light to enter the campus.

Parking
Students are sold permits for on-campus parking at the time of registration on a first-come, first-served basis.
Speed limit: 25 mph

Transportation within the Campus
Loop Bus - leaves the main gate approximately every ten minutes for a trip around the campus with regular stops. In operation during regular class schedule with adjusted hours for advisement and registration periods.

Van for Disabled
Dispatched by the Office of Operational Services or Security as requested (extension 230 or 2119).
Statement of Nondiscrimination
The College of Staten Island is an Equal Opportunity and affirmative action institution. The College does not discriminate on the basis of race, color, national or ethnic origin, religion, age, sex, sexual orientation, transgender, disability, genetic predisposition or carrier status, alienage or citizenship, veteran or marital status in its student admissions, employment, access to programs, and administration of educational policies.

Mr. Kevin Antoine is the College Affirmative Action Officer, Coordinator for Title IX, which prohibits sex discrimination in federally assisted education programs, and Coordinator for the Age Discrimination Act, which prohibits age discrimination in federally assisted education programs. His office is located in the South Administration Building (1A), Room 105, and his telephone number is 1.718.982.2250.

Professor Jeffrey Rothman, Physical Therapy Program, and Ms. Margaret Venditti, Coordinator of Disabilities Services, are the College coordinators for the Americans with Disabilities Act and Section 504, which prohibit discrimination on the basis of disability. Professor Rothman’s office is located in Building SN, Room 207, and his telephone number is 1.718.982.3155. Ms. Venditti’s office is located in the Center for the Arts (1P), Room 101, and her telephone number is 1.718.982.2513.

For information, telephone:
College of Staten Island 1.718.982.2000
Office of Student Recruitment/Admissions 1.718.982.2010
Office of Financial Aid 1.718.982.3040
Public Safety (Office) 1.718.982.2116
(Emergency) 1.718.982.2111
Affirmative Action Office/Title IX 1.718.982.2250

CSI Website: www.csi.cuny.edu

The City University of New York reserves the right, because of changing conditions, to make modifications of any nature in the academic programs and requirements of The University and its constituent colleges without advance notice. Tuition and fees set forth in this publication are similarly subject to change by the Board of Trustees of The City University of New York. The University regrets any inconvenience this may cause.
This Curriculum Supplement contains information about new courses, changes in courses, and changes in degree requirements implemented by the College since the printing of the current Graduate Catalog 2006-2008, effective fall 2007.
**COLLEGE CALENDAR**

This calendar is subject to change. Check the College Website at [www.csi.cuny.edu/currentstudents/academiccalendars/](http://www.csi.cuny.edu/currentstudents/academiccalendars/) for the most updated information.

### SPRING 2008

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<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>Jan 21</td>
<td>Monday</td>
<td>College closed.</td>
</tr>
<tr>
<td>Jan 24</td>
<td>Thursday</td>
<td>Last day to withdraw with 100% tuition refund.</td>
</tr>
<tr>
<td>Jan 25</td>
<td>Friday</td>
<td>First day of classes. Late registration.</td>
</tr>
<tr>
<td>Jan 28-29</td>
<td>Mon.-Tues.</td>
<td>Late registration. Registration for senior citizens seeking a tuition waiver.</td>
</tr>
<tr>
<td>Jan 31</td>
<td>Thursday</td>
<td>Last day to withdraw with a 75% tuition refund. Last day to add a course.</td>
</tr>
<tr>
<td>Feb 7</td>
<td>Thursday</td>
<td>Last day to withdraw with a 50% tuition refund.</td>
</tr>
<tr>
<td>Feb 12</td>
<td>Tuesday</td>
<td>College closed.</td>
</tr>
<tr>
<td>Feb 14</td>
<td>Thursday</td>
<td>Last day to withdraw with a 25% tuition refund.</td>
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<td></td>
<td></td>
<td>Last day to withdraw from course(s) without a grade of “W.”</td>
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<td></td>
<td></td>
<td>Last day to file for Pass/Fail option.</td>
</tr>
<tr>
<td>Feb 18</td>
<td>Monday</td>
<td>College closed.</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Saturday</td>
<td>Last day to file for June/August 2008 graduation. Last day to file for readmission for the summer/fall 2008 semester.</td>
</tr>
<tr>
<td>Mar 11</td>
<td>Tuesday</td>
<td>Last day to withdraw from first 7½-week courses.</td>
</tr>
<tr>
<td>Mar 18</td>
<td>Tuesday</td>
<td>Mid-term grades due.</td>
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<tr>
<td>Mar 21-24</td>
<td>Fri.-Mon.</td>
<td>No classes.</td>
</tr>
<tr>
<td>Mar 26</td>
<td>Wednesday</td>
<td>Classes follow Monday schedule.</td>
</tr>
<tr>
<td>Mar 31</td>
<td>Monday</td>
<td>Last day to appeal grades other than WU or FIN from the fall 2007 semester. Please refer to the Undergraduate Catalog for details and procedures.</td>
</tr>
<tr>
<td>Apr 2</td>
<td>Wednesday</td>
<td>Last day to withdraw without permission of an instructor and chairperson. Financial aid recipients who totally withdraw before this date may incur repayment liability.</td>
</tr>
<tr>
<td>May 5</td>
<td>Monday</td>
<td>Last day to withdraw from second 7½-week courses.</td>
</tr>
<tr>
<td>May 14</td>
<td>Wednesday</td>
<td>Last day of classes. Last day to remove incomplete grades from the fall 2007 semester.</td>
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<tr>
<td>May 15-23</td>
<td>Thurs.-Fri.</td>
<td>Final Examinations.</td>
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<td>May 24-25</td>
<td>Sat.-Sun.</td>
<td>Final Examinations Weekend.</td>
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<tr>
<td>May 26</td>
<td>Monday</td>
<td>College closed.</td>
</tr>
<tr>
<td>May 29</td>
<td>Thursday</td>
<td>Commencement.</td>
</tr>
</tbody>
</table>
CSC 716  Advanced Operating Systems
3 hours; 3 credits
Advanced topics in computer operating systems with a special emphasis on distributed computing, and the services provided by distributed operating systems and real-time operating systems. Topics may include: multithreading, real-time scheduling, synchronization, and concurrency; interaction of concurrent processes; network management and computer security; protection, remote procedure calls, transactions, shared memory, message passing, and scalability; other selected topics in state-of-the-art operating systems.
Prerequisite: CSC 632 or CSC 332 (undergraduate Operating Systems or equivalent)

EDD 629  Factors and Components of Educability
4 hours; 4 credits
Why do children appear to be so different in their ability to learn? Can we be satisfied with many versions of the “nature and nurture” explanation? What major factors affect students’ educability? What are those more specific abilities that underlie educability and where do they come from? What does it mean — to be psychologically ready for formal schooling? The course offers some non-traditional answers to these questions by challenging the view of abilities as stable intrinsic properties of the individual. The main focus is on what teachers can do to enhance students’ ability to succeed academically.
Prerequisite: One of the following courses in the psychological foundations of education: EDE 260, EDS 202, EDD 609

ESC 705  Global Climate Change
3 hours; 3 credits
This course examines the dominant physical, chemical, and geological processes controlling global climate and its variations through time, on time scales from millions of years to seasonal, interannual, and decadal scales of relevance to human societies. An account of the Cenozoic climate decline leading to the major glacial cycles of the Pleistocene will be used as a context for understanding global climate sensitivity, the modes and mechanisms of climatic responses to external forcings, and projected consequences of the ongoing build-up of greenhouse gases in Earth’s atmosphere.

NRS 750  Curriculum in Nursing
3 hours; 3 credits
The course focus is curriculum development, including philosophy, outcome criteria, curriculum design, and evaluation of nursing curriculum. The goals of the course are formulated to meet the nursing educational and professional standards and are reflective of current and future trends in nursing education and health care. Development of the curriculum design is based on theoretical founda-
tions of nursing and nursing education. Evaluation of the educational outcomes is based on national accreditation standards and criteria.
Prerequisite: Matriculation in the Advance Certificate in Nursing Education

**NRS 754 Evaluation in Nursing Education**
3 hours; 3 credits
Standardized criteria are used to guide development of a master plan of evaluation for a nursing education program. To measure student achievement of learning, the course also emphasizes test construction, item writing, clinical evaluation tools, and psychomotor skills evaluation. NRS 801 or NRS 712 is accepted in substitution.
Prerequisite: Matriculated in the Advanced Certificate in Nursing Education

**NRS 758 Teaching and Learning in Nursing Education**
3 hours; 3 credits
Teaching and learning in nursing education are based on applications of selected learning theories and guide various methods of instruction for lecture presentation, clinical laboratory, and distance learning. The course addresses the learning needs and diversity of students today. Legal, ethical, fiscal, and regulatory influences on teaching and education are included.
Prerequisite: Matriculated in the Advanced Certificate in Nursing Education

**NRS 760 Practicum in Nursing Education**
6 clinical lab hours per week, 1 seminar hour; 3 credits
The course provides an opportunity for the application of teaching and learning theory to nursing education. Varied learning settings will be used to meet the individual needs of the student, who is developing his/her role as a nurse educator.
Prerequisite: NRS 754
Pre- or corequisite: NRS 758, NRS 754

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**CHANGES TO COURSES (CHANGES ARE IN BOLD TYPE)**

**CSC 632 Operating Systems Design and Implementation**
To convey a thorough understanding of the basics of an operating system. Topics include CPU scheduling; process management and scheduling; interrupts; I/O, device handling; memory and virtual memory management and file management. Case studies of typical modern operating systems.

**HST 711 Topics in the History of East Asia**
This course covers important issues in East Asian history. Topics explored are: Late Imperial China; Tokugawa Japan; Meiji Japan; Republican-era China; rebellion and revolution in China; The People’s Republic of China; the Cultural Revolution in China; and international relations in East Asia.
HST 798  Preparation of Thesis Proposal
Students in their third semester will enroll in the Preparation of Thesis Proposal Seminar. In the seminar, students will develop their topic, begin research, collect bibliography, and receive instruction in research methodology and historical writing. Students will write a historiographical essay, reviewing the broader historical literature of their subject and relating their own approach to the field. Before completion of the seminar, students, in consultation with faculty and the program coordinator, will be assigned a thesis director and a second reader.

HST 799  Thesis Tutorial Seminar
While students are working on their thesis they will enroll in the Thesis Tutorial Seminar under the supervision of their director. The thesis director will monitor students’ progress on their thesis and meet regularly with the students. Students will present portions and drafts of their work in progress to the thesis director and, under the advice of the director, consult with the readers before submitting a formal draft to the thesis committee (the director and second and third readers).

NRS 721  Role Practicum: Adults in Community Settings
17 hours

NRS 723  Role Practicum: Adults in Acute Care Settings
17 hours

NRS 727  Role Practicum: Primary Health Care I
17 hours

NRS 728  Role Practicum: Primary Health Care II
17 hours

NRS 730  Evidence-Based Nursing for Advanced Practice
3 hours; 3 credits
This course is designed to assist students in further developing the competencies in evidenced-based nursing learned in baccalaureate courses. Students explore models of evidence-based practice, barriers and facilitators to evidence-based practice, statistical methods, and strategies for implementation of research findings in practice. Emphasis is placed on identifying the best evidence that addresses particular practice problems related to adult and gerontological health. Students determine the scientific merit of research and develop an evidence-based practice design to implement in selected practice settings.
Prerequisite: NRS 710
MASTER’S IN BUSINESS MANAGEMENT (MS)

Admission Requirements
Students may apply for admission to the program for the fall or spring semesters. A graduate Management Steering Committee comprised of the coordinator of the program and deputy area coordinators from accounting, finance, information systems, international business, management, and marketing will determine admissions using the following criteria:

- Successful applicants must have a Baccalaureate degree in Business or related fields such as corporate communications or Economics (Group 1) or an Accounting degree from CSI (Group 2) and a grade point average of 3.0 or higher. CSI Business faculty will evaluate the records of students with accounting degrees from accredited institutions other than CSI. Potential students may apply after taking proficiency courses.
- They must take the GMAT examination. Students with degrees in corporate communications may choose to take the GRE examination.
- Those with baccalaureate degrees from non-English-speaking universities also must take the TOEFL examination and achieve a score of 600 on the paper-based version or 250 on the computer-based version.
- They must supply two letters of recommendation from instructors or employers. One letter, whenever possible, should come from a current or former employer.
- The Steering Committee may request an interview.

Group 2:

Students in Group 2 are required to have an undergraduate degree in accounting from CSI. CSI faculty will evaluate the records of students with accounting degrees from accredited institutions other than CSI.

All applicants must demonstrate proficiency in business fundamentals by having completed the following undergraduate coursework before starting the MS:

- 2 courses in accounting**
- 1 course in communications (may be a communications course or a business course with a strong emphasis on business presentations)
- 1 course in computer fundamentals (i.e., MS Windows, Office, Internet skills)
- 2 courses in economics (microeconomics and macroeconomics)
- 2 courses in quantitative methods (minimum of pre-calculus and statistics)

1 course in management
1 course in marketing

Students may substitute a passing score on the CLEP examination for any of the proficiency requirements.

Students must complete an essay as part of the enrollment application.

**CSI offers a graduate proficiency accounting course (ACC 600)
MASTER OF ARTS IN CINEMA AND MEDIA STUDIES (MA)

The Master of Arts Program in Cinema and Media Studies at the College of Staten Island is uniquely situated in the most vibrant media capital in the world. Our select and markedly international student body thus has direct access to New York City's extraordinary media archives, museums, theaters, galleries, and libraries, enriching and extending what is learned in the classroom.

Students accepted into the program undertake a challenging two-year curriculum that spans core knowledge in media history, theory, criticism, and production to develop research, writing, and media-making skills in preparation for careers in academia, the arts, or media-related professions.

Students are encouraged to work one-on-one with an engaged, diverse faculty composed of active distinguished film scholars and historians, and prominent film, video, and digital media artists. In addition, our students have the rare opportunity to combine coursework in both theory and practice, completing either a written or media production thesis, with resources including a digital media lab and a television studio.

Our growing program is intended to usher cinema and media studies into a new era of global intellectual and creative exchange.

Admission Requirements
Applicants to the program are expected to have the bachelor of arts or bachelor of science degree in a liberal arts and sciences major and to have completed with a B average the undergraduate courses required for the BA in Cinema Studies or Bachelor of Science in Communications at the College of Staten Island, or their equivalent. Applicants must also submit a one- to two-page statement of intent detailing interest in the field, background in film and media studies, and/or research interests; a ten- to 12-page writing sample (a short critical essay on a film topic or other related media); and three letters of recommendation.

The priority deadline for receipt of applications for admission for the fall semester is February 15. Late applications will be accepted until May 1. The deadline for receipt of applications for the spring semester is December 1. The department admissions committee will give full consideration to applications received after these respective dates, spaces permitting.

MASTER OF SCIENCE IN COMPUTER SCIENCE (MS)

(See section Graduate Courses in Selected Disciplines for computer courses for teachers.)

The program is designed to provide advanced education in this rapidly evolving and challenging discipline. It serves those students who wish to increase their professional competence for business, industry, and research and development laboratories, as well as those students who wish to enter careers in research and teaching. Students may continue in Doctoral programs in Computer Science including the City University program in which CSI participates.
All students are required to take ten graduate courses (30 credits). These include **four foundation courses**, and six additional computer science graduate courses. **The four foundation courses cover theoretical computer science, advanced operating systems, computer architecture, and programming methodology.** Courses to meet the remaining requirements are chosen in consultation with a graduate program adviser to create a program that meets the needs of the individual student.

Any other registered CSI graduate course in computer science shall be counted as an elective for the purposes of fulfilling the MS in Computer Science degree requirements, with the following exceptions: those courses specifically identified as computing for teachers or other computer science teacher education courses or those courses identified as graduate proficiency courses.

**Admission Requirements**

1. A Bachelor of Science degree in Computer Science or related area with a B average (3.0 out of 4.0) overall and in the major
2. Graduate Record Examination
3. Satisfactory completion or demonstrable knowledge of:
   - High-Level Language CSC 126
   - Assembly Language CSC 220
   - Discrete Mathematics CSC 228
   - Information Structures CSC 326
   - Object-Oriented Software Design CSC 330
   - Switching Theory CSC 346
   - Calculus MTH 230 or 231, and 232, 233; or 235, 236
   - Probability MTH 311
   - Linear Algebra MTH 338 or its equivalents. (See the CSI Undergraduate Catalog for descriptions of these courses.)

4. **Students who satisfy the requirements listed above but who are missing CSC 332 (Operating Systems) or its equivalent in their undergraduate preparation will be admitted as matriculated graduate students but will be required to take the graduate proficiency course CSC 632.**

5. Students transferring from other related majors or entering from other colleges will be permitted to remedy upper-level undergraduate course deficiencies as follows:

   Students missing any of the following undergraduate course(s): the required undergraduate mathematics course(s), CSC 228, CSC 326, CSC 330, and/or CSC 346, must take these undergraduate courses as non-matriculated graduate students. No more than nine graduate credits may be completed before deficiencies in mathematics, CSC 228, CSC 326, CSC 330, and/or CSC 346 have been remedied. **Students who are missing CSC 332 (Operating Systems) in their undergraduate background must take the graduate proficiency course CSC 632.**

Undergraduate courses taken to remove deficiencies and graduate proficiency courses must be in addition to the regular coursework for the MS degree.
Degree Requirements
1. Matriculated status
2. A program of ten courses (30 credits) with at least a 3.0 (B) average.

The following core courses are required of all students:

**CSC 716  Advanced Operating Systems**

CSC 722  Computability  
or  
CSC 724  Formal Language Theory  

**CSC 727  Algorithms and Information Structures**

CSC 740  Computer Systems Design

The remaining six courses will be chosen from any of the following: courses listed below under specialization areas; CSC 755 Applied Mathematics for Computer Science; CSC 759 Graduate Research Laboratory.

Exceptional students may be permitted to satisfy six credits of the total credit requirement with a master's thesis.

Specialization Areas
Certain specialization areas within computer science are well represented by the department faculty research interests. Students interested in specializing in an area specified below are advised to select courses from the courses listed in that area. Students who are interested in doing research are also advised to take CSC 755 Applied Mathematics for Computer Science and/or CSC 759 Graduate Research Laboratory. For additional CUNY Graduate Center courses in a specialization area, consult the graduate program coordinator.

**MASTER OF ARTS IN HISTORY (MA)**

Admission Requirements
For matriculated status:

1. Satisfactory completion of a bachelor's degree from an accredited college and a cumulative grade point average of at least 3.0. Students not meeting this requirement may be evaluated after an interview with the program coordinator and the admissions committee.

2. A superior record of accomplishment in undergraduate history courses, with at least a 3.0 average in these courses. Students not meeting this requirement may be evaluated after an interview with the program coordinator and the admissions committee.

3. Two letters of recommendation from professors under whom the applicant has studied or other persons who can comment directly on the applicant’s potential as a graduate student and scholar.

4. Each applicant will provide a letter or statement not to exceed one typed page explaining why he or she is interested in pursuing graduate studies in history.

5. Students are no longer required to take the Graduate Record Examination.

6. Students may enter the program in either the fall or spring semester.
For non-matriculated status:
Non-matriculated graduate students and graduate students in the Education or other graduate programs, at the discretion of the MA in History program coordinator, may enroll in the program’s offerings on a space-available basis after matriculated History MA program students have been accommodated.

Master's students may take an undergraduate history course, with appropriate additional work, for degree credit, only by special arrangement and with the prior permission of the program coordinator. Undergraduate students may, with the permission of the program coordinator, take graduate courses for credit toward their undergraduate degree or the master’s degree.

Retention:
Students must have a minimum grade point average of 3.0 to be retained in a graduate program. Adhering to a two-year course of studies requires considerably more effort and dedication than one conducted over a prolonged and indeterminate period of time, so the department will make every effort to help students maintain this schedule. It should be noted, however, that courses are scheduled on a rotating basis over a two-year period. In rare cases, when individual students are unable to complete two courses during a semester, they may have the chance, with the approval of the MA Committee, to maintain their standing by taking a course in a future semester. They may also, with permission of the program coordinator, be able to take courses in the master's programs at the other CUNY colleges.

Some students – particularly those who continue to work full-time while completing the degree – will find it difficult to complete all of the degree requirements in four semesters. This is normal in most history MA programs, and students should not be discouraged by the demanding pace of CSI's program.

Probation and Dismissal:
Probationary Admission to Program: In some cases (such as when a student applies after the application closing date, with a lower-than-expected GPA, an undergraduate major other than History, or other issues), the MA Committee may admit students to the program on a probationary basis. In these cases, the standing of the student will be re-evaluated by the committee at the end of the student’s first semester in the program, at which point the probation may be lifted or the student will be informed that he or she may not continue in the program. Details regarding this process are available from the program coordinator.

Degree Requirements
The MA in History requires 32 graduate credits, with all graduate courses designated at four credits, for a total of eight courses. Students must take at least one course in each of four of the program’s five areas of concentration, the Historical Methods course (HST 701), and the two thesis seminars (HST 798 and HST 799).
Students with initial certification in Adolescence Education (social studies) who wish to obtain professional certification will complete a program of 36 credits. They will take HST 798 (4 credits) and HST 799 (4 credits). In addition, they will take EDS 691 (Advanced Studies in Teaching Secondary School Social Studies) (3 credits) and an independent study course (1 credit) in the Department of Education in the same semester in which they enroll in HST 799 (Thesis Tutorial Seminar). For further information about these certification requirements, consult the Office of Teacher Certification Services of the New York City Department of Education at 212.420.1830.

Areas of concentration:
- History of Africa and the Middle East
- History of Asia
- History of Europe
- History of Latin America and the Caribbean
- History of the United States

**Thesis:**
Students will take the four-credit HST 798 (Preparation of Thesis Proposal Seminar) with an additional four-credit HST 799 (Thesis Tutorial Seminar) during the following semester.

a. In the preparation of a proposal seminar, thesis students will develop their topic, begin research, collect bibliography, and receive instruction in research methodology and historical writing. Students will write a historiographical essay, reviewing the broader historical literature of their subject and relating their own approach to the field. Students will work with a thesis director in their field from the department faculty.

b. The thesis director will continue to supervise the thesis student during the semester of the tutorial seminar. The thesis will be accepted in partial completion of the degree when it is approved by the thesis director and the second and third readers, and is deposited in the department’s archives.

The Faculty of the Department of History has established the following standards for an acceptable History MA thesis:

1) **An acceptable History MA thesis must be based on extensive research in primary sources.** The thesis cannot be a synthetic work based on the student’s own interpretation of secondary sources and the writings of other historians.

2) **An acceptable History MA thesis must provide the historiographical context for the topic.** The introduction to the thesis will provide a thorough literature review that illustrates student mastery of, and the study’s situation within, the scholarship available on the thesis topic. Establishing the historiographical context for the thesis topic will be one of the main objectives of HST 798 in the preparation of the thesis proposal.

3) **An acceptable History MA thesis must advance an original argument.** This does not mean that the student will be the first or only person ever to address the topic, but it does mean that the student must bring a new perspective to the study that has not been provided by a scholar before.

(Thesis students should consult the statement of guidelines for thesis submission to the CSI Library, maintained by the MA in History program).
**MASTER OF SCIENCE IN ADULT HEALTH NURSING (MS)**

**MASTER OF SCIENCE IN GERONTOLOGICAL NURSING (MS)**

**Progression and Retention:**
Students must have a minimum grade point average (GPA) of 3.0 (B) to be retained in a graduate program. Students whose GPAs fall below 3.0 are on probationary status. Students may attend full or part time. **In specialization courses** (i.e., NRS 720, 721, 722, 723, 725, 726, 727, and 728), students must achieve a B or higher in order to progress in the program. If a student achieves a B-, C+, or C, he or she may request to repeat the course, if space is available and remedial activities have been completed. If the grade is an F, the student will be dismissed from the program.

Clinical Nurse Specialist/Nurse Practitioner (CNS/NP)
Option: 48-54 credits

**Electives:**
- NRS 703 Teaching and Learning for Cultural Competence
- NRS 704 Cultural Competence in Nursing: Project Development
- NRS 711 Health Care Program Development
- NRS 712 Nurse as Educator
- NRS 724 Case Management
- NRS 725 Primary Health Care with Young and Middle-Aged Adults
- NRS 726 Primary Health Care with Older Adults

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**NEW POST-MASTER'S ADVANCED CERTIFICATE IN NURSING**

**POST-MASTER’S ADVANCED CERTIFICATE IN NURSING, NURSING EDUCATION**

**Admission Requirements**
All applicants must have a Master's degree in Nursing or be accepted as master's degree students in the graduate program of the College of Staten Island, using the standard admission requirements for the Master's degree in Nursing programs.

**Nursing Education Certificate Requirements (12 credits)**
- NRS 750 Curriculum in Nursing
- NRS 754 Evaluation in Nursing Education
- NRS 758 Teaching and Learning In Nursing Education
- NRS 760 Practicum in Nursing Education
POST-MASTER'S ADVANCED CERTIFICATE IN NURSING, CULTURAL COMPETENCE

Admission Requirements
All applicants must have a Master's degree in Nursing or be accepted as a master’s degree student in the graduate program of the College of Staten Island, using the standard admission requirements for the Master's degree in Nursing programs of the College of Staten Island.

Cultural Competence Certificate Requirements (9 credits)
NRS 700   Transcultural Concepts and Issues in Health
NRS 703   Teaching and Learning for Cultural Competence Development
NRS 704   Cultural Competence in Nursing Project
# INDEX

## NEW GRADUATE COURSES

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<td>CSC 716</td>
<td>Advanced Operating Systems</td>
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<td>EDD 629</td>
<td>Factors and Components of Educability</td>
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<td>ESC 705</td>
<td>Global Climate Change</td>
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<td>NRS 750</td>
<td>Curriculum in Nursing</td>
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## CHANGES TO COURSES

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<td>HST 711</td>
<td>Topics in the History of East Asia</td>
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<td>HST 798</td>
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<td>HST 799</td>
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<td>NRS 721</td>
<td>Role Practicum: Adults in Community Settings</td>
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<td>Role Practicum: Adults in Acute Care Settings</td>
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<td>Role Practicum: Primary Health Care I</td>
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<td>Role Practicum: Primary Health Care II</td>
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<td>NRS 730</td>
<td>Evidence-Based Nursing for Advanced Practice</td>
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## CHANGES IN DEGREE REQUIREMENT

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<td>Cinema and Media Studies MA</td>
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<td>Gerontological Nursing MS</td>
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## NEW POST-MASTER’S CERTIFICATES

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<tr>
<td>Nursing, Cultural Competence, Post-Master's Advanced Certificate</td>
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