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## 2017-2019 Graduate Bulletin

Lehman College Bulletins (Catalogs) include information about admission requirements, continuation requirements, courses, degree requirements, and tuition and fees. The online Bulletins are updated periodically throughout the calendar year and provide the most current information for prospective students or for general review. Current students generally follow program requirements based on their date of matriculation, subject to changes in State requirements. All students must speak with a faculty adviser to confirm their requirements.

Lehman College<br>The City University of New York<br>250 Bedford Park Blvd. West Bronx, New York 10468<br>718-960-8000<br>www.lehman.edu

## Important Notice of Possible Changes

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 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.

The responsibility for compliance with the regulations in each bulletin rests entirely with the student. The curricular requirements in this Bulletin apply to those students matriculated in the 2013-2014 and 2014-2015 academic years. This Bulletin reflects policies, fees, curricula, and other information as of July 2014.

## Statement of Nondiscrimination

Herbert H. Lehman College 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, marital status, disability, genetic predisposition or carrier status, alienage or citizenship, military or veteran status, or status as victim of domestic violence in its student admissions, employment, access to programs, and administration of educational policies.

Mrs. Dawn Ewing-Morgan 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. Her office is located in Shuster Hall, Room 352, and her telephone number is 718-960-8111. She is also the College coordinator for the Americans with Disabilities Act and Section 504, which prohibit discrimination on the basis of disability.

## About Lehman College

## History of Lehman College

Lehman College was established as an independent unit of The City University of New York on July 1, 1968, following a decision by the University's Board of Trustees to create a comprehensive senior college in the Bronx with its own faculty, curriculum, and administration.
The College took over the campus that, since 1931, had served as the Bronx branch of Hunter College, known as Hunter-in-the-Bronx. Adjacent to the historic Jerome Park Reservoir, the first four buildings in the plan-Gillet and Davis halls, the Music Building, and the Gymnasium-were completed in 1931 by the New York State WPA. The original campus plan called for nine buildings, but the Great Depression delayed construction, and the ambitious plan was later abandoned by Mayor Fiorello H. LaGuardia.

For a decade before the entry of the United States in the Second World War, only women students attended, taking their first two years of study at the Bronx campus and then transferring to Hunter's Manhattan campus to complete their undergraduate work.
Shortly after U.S. entry into the war, the students and faculty vacated the campus and turned over the facilities to the U.S. Navy, which used them as a training station for the newly organized WAVES (Women Accepted for Volunteer Emergency Service).
To commemorate this period, the Navy later installed a ship's bell from the U.S.S. Columbia on the campus. In 1946 the campus won a niche in world history when it was made available to the United Nations at the urging of New York City officials. From March to August 1946, the first American meetings of the Security Council were held in the Gymnasium Building where intercollegiate basketball, archery, swimming, and other sports have been played. During festivities marking the 40th anniversary of the United Nations in 1986, the Southern New York State Division of the United Nations Association presented the College with a commemorative plaque, now displayed outside the Gymnasium Building. The College participated in the United Nations' 50th anniversary activities in 1995-96.

Normal collegiate activity resumed at the campus in 1947, but, in addition to women, the Bronx branch began accepting former servicemen, who studied in separate classes. In 1951 the campus became fully coeducational and a four-year curriculum was introduced. The process of separating the

Bronx campus from Hunter College into a separate unit began in 1967. Dr. Leonard Lief, chairman of the English Department, was named provost and made responsible for overseeing the transition. On July 1, 1968, Lehman College began an independent existence, with Dr. Lief as president.
The Board of Higher Education named the new college after Herbert H. Lehman, in recognition of the commitment to public service exemplified by the four-time governor of New York State who later became a U.S. Senator and was the first director-general of UNRRA (the United Nations Relief and Rehabilitation Administration). The College was formally dedicated on March 28, 1969, the 91st anniversary of Governor Lehman's birth. Each year, on or about March 28, the College commemorates the double anniversary by inviting a distinguished speaker to deliver the Herbert H. Lehman Memorial Lecture.

Much has occurred at the colleges of the City University since 1968. As the only CUNY senior college in the borough and southern Westchester County, Lehman College has adapted to meet changing conditions and is poised to respond to new needs and challenges.

On the undergraduate level, Lehman's General Education Curriculum is designed to provide a broad knowledge of the achievements and methods of the liberal arts and sciences and to develop student abilities to participate responsively in informed inquiry into subjects of both public and personal concern. It requires a series of courses in writing, mathematics, foreign language, and natural sciences. Students must also complete at least one course from a list of courses in seven areas: Individuals and Society; Socio-Political Structures; Literature; The Arts; Comparative Culture; Historical Studies; Knowledge, Self, and Values. In addition, students must complete two upper division interdisciplinary courses: one in Topics in the Humanities and the Sciences and one in the American Experience. To develop writing skills, students must complete four courses designated as writingintensive. Major and minor fields of study are also required.
On the graduate level, the College has developed professional programs in nursing, teacher and counselor preparation, accounting, business, computer science, health services, public health, social work, and speech-language pathology. The College also offers strong traditional liberal arts graduate programs in art, biology, English, history, Spanish and mathematics.

For more than two decades, Lehman has deepened its involvement with the surrounding community. The opening of the Lehman Center for the Performing Arts in 1980 and the Lehman College Art Gallery in 1984 has made the College a cultural center for the region. Together with the City and the Humanities Program, the Department of Music, and the Theatre program, they present dozens of concerts, plays, dance performances, and exhibitions that are free or nominally priced.
The Art Gallery is housed in the Fine Arts Building, which was designed by the renowned architect Marcel Breuer - as was Shuster Hall, which houses the College's administrative offices. The Concert Hall, the adjacent Lehman College Library, and the two Breuer buildings offer a striking contrast to the Tudor-Gothic architecture of the original College buildings, providing an environment of considerable architectural interest. Anchoring the campus on its northern end is the APEX, designed by the internationally acclaimed architect Rafael Violy. Inside are sophisticated facilities for swimming, basketball, racquetball, weight training, track and field, and dance as well as new offices for security and academic departments.
One of the latest facilities to reach completion on the Lehman campus is Science Hall, a $\$ 70$ million science facility with updated, versatile classrooms, labs, and instrumentation; a rooftop teaching and research greenhouse; and environmentally sustainable technologies. The new building stands adjacent to Gillet Hall, and is accessible from the older building through a third-floor catwalk.
Another facility, the new Child Care Center, opened its doors in fall 2013. The center features six classrooms; a multipurpose room that can function as a playroom, afterschool space or additional classroom; and a natural playground incorporating greenery, boulders and garden space, along with traditional playground equipment.
Lehman College also provides a variety of community services. The Institute for Literacy Studies sponsors classes to teach adults fundamentals of reading and writing, while the Speech and Hearing Center offers comprehensive evaluations of hearing and speech-language disorders.

There is close collaboration between the College's teacher and counselor education programs and Bronx school districts:

- The New York City Writing Project supports workshops for teachers of writing as well as research at all educational levels.
- The Center for School/College Collaboratives receives external funding for projects that focus on increasing educational success for Bronx students and their families and preparing the students to enter and complete higher education. The Center works with the entire school community - administrators, teachers, students, and parents
- and collaborates with the Bronx Regional Offices of the New York City Department of Education.
- The Bronx Institute, funded with private and government grants, is helping more than 12,000 Bronx schoolchildren become academically successful.
Lehman also participates with the New York City Department of Education in developing small high schools in the Bronx. The schools - housed within larger, traditional high schools are formed around the themes of the visual arts, teaching and the professions, music, health sciences, nursing, musical theatre, community research and learning, and international studies.
In addition, in Fall 2003, the High School of American Studies at Lehman College opened on the Lehman campus. One of New York City's new specialized high schools and the only one to focus on American history, the school represents a collaboration among Lehman College, the New York City Department of Education, and the Gilder-Lehrman Foundation. It has been listed for several years by U.S. News and World Report as one of the nation's top 100 public high schools, most recently (2012-13) as \#6 in New York City and \#44 in the nation.

Dr. Ricardo R. Fernández succeeded Dr. Leonard Lief, the founding president of Lehman College, on September 1, 1990. Throughout his tenure as president, Dr. Fernández affirmed both the College's strong commitments to access to higher education for the economically disadvantaged and educational excellence.
On August 15, 2016, Dr. José Luis Cruz began his tenure as the third president of Lehman College. When Dr. Cruz was appointed executive vice chancellor and university provost for CUNY on May 1, 2019, Chancellor Félix V. Matos Rodríguez appointed Dr. Daniel Lemons, who has served as a faculty member and administrator with CUNY for 30 years, as interim president, effective July 1, 2019.
Lemons's notable career in cardiovascular and comparative physiology as a researcher, educator and senior administrator includes a long tenure at City College, where he is professor emeritus and served as a faculty member, provost and senior vice president of Academic Affairs, dean of the Division of Interdisciplinary Studies, and dean of the Division of Science. Prior to his interim presidential appointment, Lemons served as interim dean of Academic Affairs in the Office of the Provost at Lehman.

## Mission, Vision, and Values Statements

## Mission Statement

Lehman College serves the Bronx and surrounding region as an intellectual, economic, and cultural center. Lehman

College provides undergraduate and graduate studies in the liberal arts and sciences and professional education within a dynamic research environment, while embracing diversity and actively engaging students in their academic, personal, and professional development.

## Vision Statement

Lehman College has entered a new era in its history as an institution of higher education. Already known for its outstanding faculty, dedicated staff, superb library, art gallery, theaters, speech and hearing clinic, and athletic facilities, the College is now building a new state-of-the-art, environmentally "green" science facility that will invigorate faculty and student research as well as prepare Lehman students for science-based careers.

Supported by the University's expanding technological resources, the College will promote creative teaching strategies, greater access to courses through online learning, off-campus access to library resources and enhanced student services. The new Multimedia Center will stimulate technological innovation in all areas of communications and the arts for both the College and the region.
Lehman has always been a commuter campus that prides itself on its diversity and commitment to multicultural understanding. Now, the College looks forward to providing a residential experience to attract a wider range of students and lead to the development of new learning communities to enhance student success.

Lehman College will prepare students to live and work in the global community through new interdisciplinary programs, such as environmental studies and international business, along with study abroad and experiential learning opportunities. The College's geographic information systems and numerous partnerships with schools, hospitals, social service and governmental agencies, small businesses, major corporations, and cultural and scientific institutions will contribute to the economic development of the region. Service learning and internship opportunities will be further developed to foster the engaged citizenship and commitment to public service embodied in its namesake, Herbert H. Lehman.

Recognized for small classes, close interaction between students and faculty, a successful Teacher Academy and Honors College, and a caring and supportive environment, Lehman College will celebrate its fiftieth anniversary in 2018 as the college of choice in the region, committed to preparing students for graduate studies, professional careers, and lifelong learning.

## Values Statement

Lehman College is committed to providing the highest quality education in a caring and supportive environment where
respect, integrity, inquiry, creativity, and diversity contribute to individual achievement and the transformation of lives and communities.

## The City University of New York

TODAY'S City University of New York dates back to the 1847 founding of the Free Academy by Townsend Harris, an early champion of public education and a pioneering diplomat who was the United States' first ambassador to Japan. With an inaugural class of 143 academically qualified young men, the Academy set upon a mission to, in Harris' words, "let the children of the rich and the poor take their seats together and know of no distinction save that of industry, good conduct, and intellect." The Academy quickly grew in reputation and enrollment and, as a new century approached, plans were approved for an expansive neo-Gothic campus uptown for what became known as the College of the City of New York. Twenty years after the first young men entered the Academy, a separate school for the education of teachers, the Female Normal and High School, later renamed Hunter College in honor of its founder Thomas Hunter, offered the same higher education opportunities to women.

Fueled by an immigration boom in the early 20th century, City College and Hunter expanded to include evening session branches in Brooklyn and Queens. In 1926, the state Legislature established a Board of Higher Education to oversee the growing municipal college system and expand public access in the city's outer boroughs. Over the next decade, Brooklyn College and Queens College were founded, and Hunter established a Bronx campus, which decades later would become Lehman College.

Despite the city's limited resources, demand for public higher education continued to grow during the Great Depression era. The colleges created night divisions that charged affordable tuition while offering students the opportunity to work toward their degrees or raise their grades to the levels required to enter the colleges' free baccalaureate programs. In the ensuing post-World War II years, another dramatic enrollment boom led to the creation of several community colleges, including one on Staten Island. In 1961, the state Legislature formally established The City University of New York, uniting what by then had become seven municipal colleges into a formally integrated system, and authorizing the new University to offer doctoral programs. Demand increased further during the 1960s, leading to a six-year period when tuition was briefly eliminated and senior college admission was given to any city resident with a high school diploma or equivalency degree. Today, the senior colleges have selective admission requirements. Community colleges continue to serve as portals to opportunity for applicants with a high school or GED diploma.

Since 2000, billions of dollars have been reinvested to rebuild, enhance and expand the University's 24 campuses. The CUNY Graduate School of Journalism, CUNY School of Public Health, the Macaulay Honors College and the innovative Guttman Community College are among the colleges and graduate schools recently established. This greatly expanded University, serving record enrollments, offers tuition-free education to nearly six in 10 full-time undergraduates thanks to federal, state and CUNY financial aid. In contrast to the crushing debt other students typically carry at many public and private institutions, 85 percent of CUNY's full-time students are student loan debt free.
The University's 21st century mission remains true to its founding principles of academic excellence, scholarship and opportunity for all. CUNY boasts 12 Nobel laureates and the tradition of high academic achievement continues as CUNY students prestigious Rhodes, Fulbright, National Science Foundation, Truman and Goldwater scholarships. With a flourishing reputation among students and educators alike, CUNY is defining value by providing the opportunity of a lifetime: a high-quality, competitive and remarkably affordable college education. It's an education that delivers in the marketplace, producing job-ready graduates with respected academic credentials. It's a 21st-century education, taught by top scholars on upgraded campuses, that is transforming the student experience, bringing jobs to New York and stimulating economic development.

That's why more high-achieving students, and more students of all backgrounds and abilities, are choosing to study in vibrant New York City, at the City University of New York.

## College Governance

The Lehman College system of campus governance consists of the College Senate. The Lehman College Senate is a unicameral body of 102 members, representing the faculty, students, and administration of the College, and is presided over by the College president. Subject to the authority of the Bylaws of the Board of Trustees of the City University of New York, the College Senate is responsible for the formulation of academic policy and for legislative and advisory functions related to the programs, standards, and goals of the College.

## College Accreditation and Affiliations

Lehman College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. Degree programs are registered by the New York State Education Department. Some degree programs are also accredited by professional associations.

The baccalaureate degree program in Nursing/master's degree in Nursing are accredited by the Commission on Collegiate Nursing Education (http://www.ceneaccreditation.org). The social work program is accredited by the Council on Social Work Education. The College also offers nutrition programs approved by the American Dietetic Association. Lehman's B.S. degrees in chemistry are certified by the American Chemical Society. The graduate program in speech-language pathology is accredited by the American Speech-LanguageHearing Association. All educator preparation programs offered by the College's School of Education are accredited by the Council for the Accreditation of Educator Preparation (CAEP). In addition, the School of Education's counselor education program in school counseling offered by the Department of Counseling, Leadership, Literacy, and Special Education is nationally accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Lehman's B.S. and M.S. programs in accounting provide the educational preparation required for licensure as a Certified Public Accountant in New York State. The College offers State-approved teacher education programs that can lead to New York State provisional or permanent certification. Graduates of the undergraduate nursing program are eligible to take the Registered Nurse licensure examination.

Lehman College has chapters of Phi Beta Kappa, Sigma Xi, and Golden Key National Honor Society. Individual disciplines have their own honor societies with national affiliations. The College is a member of the National Collegiate Athletic Association and the Eastern Collegiate Athletic Conference.

## Degree Programs

## Undergraduate Curriculum

Lehman College offers undergraduates a wide choice of major programs in both the liberal arts and sciences and in the professions. The College offers the degrees of Bachelor of Arts (B.A.), Bachelor of Science (B.S.), Bachelor of Fine Arts (B.F.A.), Bachelor of Business Administration (B.B.A.), and Bachelor of Arts-Master of Arts (B.A.-M.A.). Majors are either departmental or interdepartmental.

## Graduate Curriculum

The College offers a choice of more than forty master's degree programs in arts and sciences, health fields, and teacher education. Advanced certificates are offered in some areas. The degrees offered are the Master of Arts (M.A.), Master of Science (M.S.), Master of Science in Education (M.S. Ed.), Master of Arts in Teaching (M.A.T.), Master of Fine Arts (M.F.A.) in Art, and Master of Social Work (M.S.W.). In
addition, more than seventy-five Lehman College faculty members participate in City University doctoral programs.

## Schedule of Courses

## Academic Year

During the regular academic year, which runs from late August through the end of May, Lehman offers a full range of undergraduate and graduate courses on a day, evening, weekend, hybrid, and online schedule.

## Winter and Summer Sessions

Lehman offers winter and summer sessions, in January, June, and July. Undergraduate and graduate summer programs accept matriculants as well as visiting and non-degree students, in day, evening, and online classes. Many students utilize these sessions to accelerate their time to degree completion.

## Academic Organization

The College's academic departments and programs are divided into five schools:

## School of Arts and Humanities

## Departments

Africana Studies
Art
English

## History

Journalism, and Media Studies
Languages and Literatures
Latin American and Latino Studies
Music, Multimedia, Theatre, and Dance
Philosophy

## Interdisciplinary Programs

Classical Civilization and Classical Tradition (Minor)
Comparative Literature (BA and Minor)
Disability Studies (Minor)
Humanities (Minor)
Irish Studies (Minor)
Linguistics (BA and Minor)
Middle Eastern Studies (Minor)
Program for Professional Communications (Minor)
Urban Studies (Minor)

Women's Studies (Minor)

## Institutes

Institute for Irish-American Studies
The Jaime Lucero Mexican Studies Institute

## Collaboratives

High School of American Studies at Lehman College

## School of Continuing and Professional Studies

## At 2 locations: On campus and at CUNY on the Concourse

## Center

Small Business Development Center

## Programs

Continuing Education - Certificates and Licenses
Workforce Education - Credit and non-credit training
CUNY 2X/Tech Talent Pipeline
Adult Degree Programs:
-
Bachelor's Degrees
-
Master of Arts in Liberal Studies

## School of Education

## Departments

Counseling, Leadership, Literacy, and Special Education
Early Childhood and Childhood Education
Middle and High School Education

## Institutes

The Bronx Institute
Institute for Literacy Studies

## Collaboratives

Center for School/College Collaboratives
School of Health Sciences, Human Services, and Nursing

## Departments

Health Sciences

Nursing

## Social Work

Speech-Language-Hearing Sciences

## Institutes

CUNY Institute for Health Equity

## School of Natural and Social Sciences

## Departments

Anthropology

## Biological Sciences

Chemistry

## Computer Science

Earth, Environmental, and Geospatial Sciences

Economics and Business

Mathematics

Physics and Astronomy
Political Science
Psychology

## Sociology

## Centers

Center for Theoretical and Computational Sciences
Center for Human Rights and Peace Studies

## Research Institutes and Community Resources

## Bronx Data Center

The Bronx Data Center collects and analyzes demographic material related to the Bronx and adjacent areas, in order to provide service to the Lehman community, as well as to cultural, social service, civic, media, and other organizations. The Center focuses on data for very small geographic units (down to the city block), as well as the Bronx as a whole. Historical data going back several decades complement the latest census information. The Center specializes in the graphic presentation of data through computer-generated maps. See:
www.lehman.edu/deannss/bronxdatactr/discover/bxtext.htm

## The Bronx Institute

The mission of the Bronx Institute at Lehman College is to foster faculty research relevant to the improvement of education and the quality of life in the Bronx; and to provide a forum to discuss, analyze, and identify potential solutions to contemporary educational, social, political, cultural, and economic challenges facing the Bronx community, in particular, and other urban areas at large. As a community resource, the Bronx Institute is committed to act in cooperation with other academic institutions, community groups, and organizations to develop joint projects, especially those that enrich the educational needs of all Bronx students. The vision of the Institute is to foster and promote equity and excellence in the education and learning of Bronx students in grades K-16 by involving administrators, teachers, parents, and the students themselves in high-quality programs that support and enhance the educational opportunities of the students.

## The Center for School/College Collaboratives

The Center for School/College Collaboratives designs and implements programs, in partnership with Bronx schools, to enrich student learning and ensure student readiness and motivation to graduate high school and enter college. Programs offered by the Center primarily emphasize student outcomes and achievement. These programs encompass: student and teacher enrichment in mathematics, science, and technology; recruitment of middle and high school students for careers in teaching; intensive work with at-risk students to prepare them for educational transitions from middle to high school and from high school to college; pre-service teacher preparation for bilingual students and paraprofessionals; inservice professional development in technology and interdisciplinary teaching; and close working relationships with over twenty Bronx schools.
Programs focus on working intensively with students and teachers from particular schools and on building pipelines for students since these efforts have been shown to have greater potential for success than programs that draw students from a wide range of schools.
The Center subscribes to several Principles of Collaboration: all partners are equal; planning and implementation involve school administrators/teachers/staff/students/parents; broadening student/teacher contact in informal, hands-on, project-based settings; activating parent and family involvement; focusing on integration of student learning experiences; developing a plan of action; establishing linkages among projects; and encouraging high school students to qualify for, and take, college credit courses while still in high school.

The Center also houses Lehman's well-regarded, CUNYsponsored College Now Program. The goal of the program is to insure that all students meet and exceed the performance standards required for high school graduation and that all those who wish to pursue postsecondary study are prepared to do so. Lehman has had a version of College Now or Bridge to College since 1985, when qualified students involved in the College's various funded programs were invited to enroll in college-credit courses. The College Now eleventh- and twelfth-grade program offers a variety of college-credit courses depending on student interest and ability. These include courses in psychology, studio art and art history, calculus and pre-calculus, education, biology, English, history, computer science, economics, geology, philosophy, speech, and sociology.
Funding for Center programs has been provided by the New York City Department of Education, U.S. Department of Education, National Aeronautics and Space Agency, New York State Education Department, the City University of New York, Fund for Improvement of Post-Secondary Education, Aaron Diamond Foundation, and others.

## Center for Human Rights and Peace Studies

The Center for Human Rights and Peace Studies advances social justice and human dignity in an interdisciplinary fashion through active involvement of faculty, students, and community in research and teaching. The Center builds on the College's unique history: the drafting of the Universal Declaration of Human Rights began at Lehman College when the United Nations met at the College. Lehman College students, often immigrants and the first in their families to access higher education, engender a broad understanding of human rights. The Center unites student and faculty engagement on local and global rights issues in New York and the greater world community. Currently the Center offers a minor in Human Rights and Peace Studies.

## Center for Theoretical and Computational Sciences

Director: Daniel Kabat (Gillet Hall, Room 131A)
The Center for Theoretical and Computational Sciences is an interdisciplinary research center drawing on faculty engaged in theoretical and/or computational research in the departments of Math and Computer Science, Chemistry, and Physics and Astronomy. It serves to facilitate faculty research, foster interdisciplinary collaboration, and provide opportunities for undergraduate and graduate students to engage in faculty/student collaborative research. A major part of the Center's mission is to provide outreach, mentoring and training to scientists at the early stages of their scientific careers.

## CUNY Institute for Health Equity

The CUNY Institute for Health Equity provides a home for interdisciplinary population-based research and training across CUNY campuses, and with community organizations in The Bronx, Manhattan and Brooklyn. Faculty affiliates from other campuses, and student interns, are actively engaged in applied research and programs to address the social determinants of health, and health equity in under-served communities of color. Collaboration with CUNY public health programs and school, and external organizations support the goal of achieving health equity and social justice within neighborhoods where CUNY campuses are located.

## The Institute for Literacy Studies

The Institute for Literacy Studies, founded in 1984, is a research unit of The City University of New York. The Institute's mission - reforming and improving urban education - has deep significance in its home borough of the Bronx as well as throughout New York City and the nation. The Institute defines urban education in its broadest, most inclusive meaning to comprise the complex web of systems, settings, and relationships that foster learning. It works to advance research, articulate theory, and implement effective practice in literacy and mathematics education through initiatives in a variety of educational settings $\mathrm{K}-16$, including schools, community-based organizations, adult literacy programs, and CUNY campuses. Through its Adult Learning Center, the Institute offers basic education, English language instruction, and preparation for the high-school equivalency exam and college transition to members of the community who are not enrolled in school or college. See www.lehman.edu/literacy-studies.

## The Institute for Irish American Studies

The CUNY Institute for Irish American Studies was established by the CUNY Board of Trustees to focus on the Irish-American Diaspora and its impact on American culture and society. The Institute, first and foremost, serves as a clearinghouse for research opportunities in Irish-American studies for students, staff, and faculty on all of the campuses of the City University of New York. Current projects being undertaken by the Institute include Publishing in Irish America 1820-1922, Great Irish Famine Curricula In-Service Training, Documenting Return Emigration, Curriculum Design: Teaching the Irish Language in America, the "New Irish" and Film, Mapping Irish America, and the Irish in the Americas.

In line with the current research projects of the Institute, an extensive program of public lectures and events is sponsored each semester. The Institute invites researchers and leaders in the community to present at its Wednesday evening lecture series. The Institute also sponsors day-long symposia on
specific topics, Irish language conversation circles, and celebrations of the arts. The Institute additionally makes a number of distance education courses arising from its research areas available to students at CUNY campuses and throughout the country. These courses make use of online software as well as tours and lectures in the U.S. and abroad.

## The Jaime Lucero Mexican Studies Institute at CUNY

The Jaime Lucero Mexican Studies Institute at CUNY is comprised of all the faculty, students, staff, and affiliated community-based organizations working on research, advocacy, and services related to Mexico and Mexicans in the United States. Among the goals of The Jaime Lucero Mexican Studies Institute at CUNY are promoting the creation of courses, majors, minors, and programs of study in campuses across the CUNY system; promoting enrollment, retention, and graduation of Mexican and Mexican-American students in CUNY; sponsoring an annual academic conference as well as film series, lectures, workshops on Mexican topics; serving as liaison, resource, and epicenter for the coming together of Community-Based Organizations (CBOs) for the promotion of cultural, educational, and social programming for the larger Mexican community and all of New York City; supporting undergraduate and graduate students through internships, research assistantships, and other service-learning opportunities with cultural, diplomatic, social, and economic institutions working with the Mexican population in New York City. For further information visit http://www.lehman.edu/mexican-studies

## Graduate Programs and Policies

## Graduate Programs

Through its graduate programs, Lehman College offers qualified students the opportunity to pursue the advanced study of academic disciplines in breadth as well as in depth. Emphasis is placed on scholarship, original work, and training in research.

The College offers over forty master's degree programs in arts and sciences and in professional studies. Graduate enrollment is approximately 2,000 students of a total Lehman student body of almost 12,000 . Most graduate students attend parttime, combining graduate study with a regular job or career. Graduate courses are generally scheduled late in the day to facilitate attendance. Some graduate programs offer students the opportunity to take some coursework online or in a hybrid format.

The degrees offered are the Master of Arts (M.A.), Master of Science (M.S.), Master of Science in Education (M.S. Ed.), Master of Arts in Teaching (M.A.T.), Master of Fine Arts (M.F.A.), Master of Public Health (M.P.H.), and Master of Social Work (M.S.W.). Lehman also offers advanced certificates. Lehman faculty participate in most City University doctoral programs. In association with the New York Botanical Garden, a plant sciences concentration in the University doctoral program in biology is based at Lehman College.

## Office of Graduate Studies

The Office of Graduate Studies (Shuster Hall, Room 279, 718-960-8972) coordinates all graduate programs, policies, and procedures. The Graduate Office is available to answer questions regarding graduate study and College-wide policies pertaining to graduate study at Lehman. Questions about specific academic programs or program requirements should be directed to the appropriate Graduate Program Adviser.

## Departments Offering Graduate Programs

Graduate programs leading to a master's degree or advanced certificate are offered by the following departments: Art; Biological Sciences; Counselor, Leadership, Literacy, and Special Education; Early Childhood and Childhood Education; Earth, Environmental and Geospatial Sciences; Economics and Business; English; Health Sciences; History;

Languages and Literatures; Mathematics and Computer Science; Middle and High School Education; Music; Nursing; Social Work; and Speech-Language-Hearing Sciences. $A$ detailed inventory of degrees, programs, and specializations is contained in this chapter of the bulletin.

## Doctoral Programs With CUNY

Lehman College, in conjunction with the Graduate School and University Center, contributes faculty, and in some cases facilities, for the following doctoral programs of The City University of New York:

Anthropology
Art History
Biochemistry
Biology (Plant Science doctoral program at Lehman College)
Chemistry
Classics
Comparative Literature
Computer Science
Earth and Environmental Sciences
English
French
Hispanic and Luso-Brazilian Literatures
History
Linguistics
Mathematics
Music
Philosophy
Physics
Public Health
Political Science
Psychology
Sociology
Speech and Hearing Sciences
Theatre
Urban Education

## Inventory of Graduate Programs as Registered with The New York State Education Department

The following list gives the titles of Lehman College graduate
programs that have been registered with the New York State
Education Department. The list may include programs not
currently offered by the College; it is the responsibility of
each student to determine which programs are currently being
offered. Students are cautioned that enrollment in other than
registered or otherwise approved programs may jeopardize
eligibility for certain student financial aid awards.

## HEGIS Chart

| HEGIS <br> Number | Degree/ Certificate | Title |
| :---: | :---: | :---: |
| 0502 | MS | Accounting |
| 1002 | MA | Art |
| 0831 | MA | Art N-12 Teacher |
| 1002 | MFA | Art |
| 0899 |  | Bilingual Extension for Secondary Teachers |
| 0401 | MA | Biology |
| 0401.01 | MA | Biology "7-12" |
| 0502.00 | MS | Business |
| 0838 | MS Ed | Business Ed./Secondary \& Adult Ed. |
| 0701 | MS | Computer Science |
| 0823 | MS Ed | Early Childhood Education |
| 0802 | MS Ed | Childhood Education |
| 1501 | MA | English |
| 1501 | MS Ed | English Education |
| 0899 | Adv. Cert. | English Education |
| 1501.01 | MA | English "7-12" |
| 0826.01 | MS Ed | Counselor Education |
| 2206.00 | MS | Geographic Information Science |
| 2206.10 | Adv. Cert. | Geographic Information Science |
| 0837 | MS Ed | Health N-12 Teacher |
| 0837 | MA | Health Education \& Promotion |
| 1214 | MPH | Public Health |
| 2205 | MA | History |
| 4901 | MA | Liberal Studies |


| 1701 | MA | Mathematics |
| :---: | :---: | :---: |
| 1701 | BA-MA | Mathematics (Dual) |
| 1701.01 | MA/MS ED | Mathematics Education |
| 0899 | Adv. Cert. | Mathematic Education |
| 0832 | MAT | Music |
| 1203.10 | MS | Parent-Child Nursing |
| 1203.10 | MS | Adult Health Nursing |
| 1203.10 | MS | Nursing of Older Adults |
| 1203.10 | MS /Adv. <br> Cert. | Pediatric Nurse Practitioner |
| 1306 | MS | Nutrition |
| 0830 | MS Ed | Literacy Studies |
| 0835.01 | MA/MS Ed | Recreation Education |
| 0828.00 | MS Ed | School Building Leader |
| 0826.01 | MA | School Counselor |
| 0827.00 | MS Ed | School District Leader |
| 0834 | MS Ed | Science Education |
| 0899 | Adv. Cert. | Science Education |
| 2201.01 | MA | Social Studies Education |
| 0899.50 | Adv. Cert. | Social Studies "7-12" |
| 2201.01 | MA | Social Studies "7-12" |
| 2104 | MSW | Social Work |
| 1105.01 | MA | Spanish "7-12" |
| 1506.01 | MA | Speech and Hearing Sciences |
| 1506 | MA | Speech and Theatre |
| 1220 | MA | Speech-Language Pathology and Audiology |
| 0808 | MS Ed | Teachers of Special Education |
| 0899 | Adv.Cert. | Teachers of Languages Other than English |
| 1508 | MS Ed | Teaching English to Speakers of Other Languages |

NOTE: Changes in program requirements designated by the New York State Education Department for Teacher, Counselor and/or Administrator certifications occur from time to time. As such, students are advised to consult the office of the Division of Education, Room B-33 of Carman Hall, to determine the most current program requirements for certification. Students not seeking an institutional recommendation but who intend to apply independently for certification should consult with a
departmental adviser prior to registration so that a course of study fulfilling state requirements may be planned. New York State may at some point end the independent transcript review route to certification. Students should consult the New York State Education Department website for updates or may check with the Division of Education's Certification Office to determine if a change in this policy has been adopted.

## Education Programs

Designed primarily for students who have completed an undergraduate teacher-preparation program-including general education, academic specialization, and professional foundations-Lehman College's graduate programs in education extend the competence of the classroom teacher, school counselor, and school leader; provide training for specialized school professionals; and promote research for all school professionals. The programs focus on the mastery of academic disciplines, the development of education theory and practice, clinically rich experiences in schools, and research on issues of particular relevance to teachers, counselors, and building leaders in urban schools.

The educator preparation programs allow the prospective professional to specialize in such fields as Early Childhood and Childhood Education, Middle and High School Education (English, social studies, mathematics education, science education, and Teaching English to Speakers of Other Languages-TESOL), counselor education, educational leadership, literacy studies (reading education), and special education.

In addition, there are five graduate programs designed for applicants who seek certification as teacher of music, visual arts*, foreign language education, health, or students with speech and language disabilities (TSSLD) in schools. These programs are offered through the Music Department, Art Department,* Department of Languages and Literatures, Department of Health Sciences, and Department of Speech-Language-Hearing Sciences in partnership with the School of Education.

The academic and education programs described in this Bulletin are designed to fulfill the requirements for New York State initial or professional certification. Students who graduate from an educator preparation program may apply for New York State initial or professional certification, contingent upon their credentials.
Note: The graduate Art Education Program currently leads to professional certification only. (Art education leads to both initial and professional certification).

## Student Teaching/Internship/Practicum Requirements and Policies

In addition to the successful completion of a degree in an educator preparation program, supervised field experience or clinical practice (e.g., student teaching, an internship, or a practicum) is required for all candidates in graduate programs applying for certification in New York State as a teacher, school counselor, or school building/school district leader. Student teaching, internship, or practicum cannot be waived based on prior experience or other factors. For specific program requirements, see the program adviser.
Acceptance into either student teaching or teaching internship is based on student completion of program prerequisites, and applications are subject to review and recommendation by program faculty.
Any candidate found to be in violation of any of the conduct guidelines detailed in the Lehman College Student Handbook and/or the candidate's discipline-specific code of ethics may not be recommended for student teaching/teaching internship. In certain situations, the candidate will be advised to meet with the adviser and program coordinator to plan for degree completion. The Lehman College Student Handbook can be found on the College website at http://www.lehman.cuny.edu/campus-life/.
All prospective student teachers are urged to plan their course of study so they can devote a semester exclusively to their student teaching. Student teaching is a full-time, semesterlong commitment. Candidates must follow the attendance policy of each program. Unexcused absences from supervised field experience may be grounds for removal from the placement. Candidates may repeat student teaching, internship, or practicum only once.
Applications for student teaching/teaching internship must be filed the semester prior to student teaching and requires permission of the program advisor and a methods course instructor. Application due dates are April 1 for the fall semester and November 1 for the spring semester. The November 1 deadline also applies for candidates in special education programs who will student teach in the summer. Information about student teaching is posted on the School of Education's website at www.lehman.edu/academics/education/.

## Teacher Certification Requirements For Education Matriculants

## Initial Teacher Certification

Matriculants who successfully complete a graduate educator preparation program at Lehman are eligible to apply for New York State initial certification. Matriculants must file an
application for their certificate as a classroom teacher or school building leader at the end of their final semester of graduate study. Filing instructions and related information may be obtained from the Certification Officer, Room B33 of Carman Hall.

The certification process is as follows:

- Matriculants should visit the Certification Office to receive an undergraduate transcript(s) evaluation of their Liberal Arts \& Sciences credits for certification in their area of study.
- The candidate may need to take additional courses if there is deficiency in their liberal arts and sciences credits.
- The candidate completes the graduate education program and obtains the degree.
- The candidate files for certification using his or her NYSED Teach account with a program code provided by the Certification Officer.
- The candidate contacts the Certification Officer when his or her status of graduation is completed on his or her CUNYfirst account.
- The Certification Officer enters an electronic institutional recommendation for NYS certification into their NYSED Teach account.
- The State Education Department issues electronic certificates on TEACH online services at www.highered.nysed.gov/tcert
Candidates for initial teacher certification must meet the State requirements for certification as follows:
- A bachelor's degree;
- Completion of NYS registered graduate educator preparation program ;
- Successful completion of internship, student teaching, or practicum course;
- Passing the New York State Teacher Certification Examinations: (a) Teacher Performance Assessments (edTPA), (b) Educating All Students test (EAS), and (c) Revised Content Specialty Test (CST);
- Completion of New York State mandated workshops on School Violence Prevention, Child Abuse Identification, and the Dignity for All Students Act (DASA).) Speech and Special Education candidates must also complete the Needs of Students with Autism workshop.


## Professional Teacher Certification for Initial

 Certificate Holders Who Have Had Three Years of Teaching Experience.Completion of a graduate program in education at Lehman College may lead to New York State professional certification in their area of study. Students who wish to obtain
professional certification in Special Education, Educational Leadership, Literacy Studies, Middle and High School Education (e.g., English, mathematics, social studies, TESOL, science, foreign language, and health), or Early Childhood and Childhood Education must have earned an initial teacher certification. Information on requirements for professional certification is available from the New York State Education Department - Office of Teaching Initiatives at www.highered.nysed.gov/tcert. Lehman College recommends a student for professional certification only in the area of his/her master's degree. For example, a student who holds initial certification in Childhood Education (Grades 1-6) may apply for professional certification in Special Education if his or her master's degree is in Special Education. Students, however, may apply on their own for professional certification in an area outside their master's degree specialization through their NYS TEACH online account.

## Academic Policies and Procedures

## Degree Requirements and Policies

To earn a Master of Arts, Master of Science, Master of Science in Education, Master of Social Work, Master of Public Health, Master of Arts in Teaching, or Master of Fine Arts degree, a student must:

- Be formally admitted to a master's degree program. Students cannot be matriculated simultaneously in more than one master's degree program at Lehman College. See Dual Graduate Program Matriculation.
- Complete no fewer than 30 credits of graduate courses that are acceptable to the department of specialization.
- Maintain a minimum Grade Point Average of 3.0.
- In most programs, write a thesis based on independent research, complete an appropriate special project, and/or pass a comprehensive examination. Departmental requirements are outlined elsewhere in this bulletin.
- Complete all requirements for the degree within five years following matriculation.
- Complete all departmental requirements for the degree.


## DUAL GRADUATE PROGRAM MATRICULATION

Graduate students cannot be simultaneously matriculated in the following: Master of Arts, Master of Science, Master of Science in Education, Master of Social Work, Master of Public Health, Master of Arts in Teaching, or Master of Fine Arts degree programs. After completion of a first master's degree at Lehman, students must contact the Office of Graduate Admissions if they wish to begin a second master's degree program.

Graduate students may pursue a certificate or extension program while completing a master's degree program if the
student adheres to the admissions requirements for that certificate or extension program. If a student is already matriculated in a master's degree and would like to add a certificate program during their course of study, they must fill out a Change in Graduate Curriculum form, located in the Office of Graduate Studies.

Graduate students matriculated in both a master's degree and an advanced certificate simultaneously may have course curriculum that overlaps. In this instance, courses may be used to satisfy both programs.

## CHANGE IN GRADUATE PROGRAM

Currently enrolled graduate students and non-registered active graduate students who wish to change to, or change between, master's and certificate programs, must complete a Change in Graduate Curriculum form located in the Office of Graduate Studies. This form is also used to add a second program (official joint, concurrent, certificate, or extension program).
The form must be signed by both the previous program and new program advisor(s). The Office of International Student Services must also sign for international graduate students. The completed form must arrive in the Office of the Registrar at least two weeks prior to the start of classes for which the change is requested; however, many programs have earlier admission deadlines. Graduate students are required to understand and adhere to specific department guidelines for admission.
Students should meet with the academic advisor of the new program to discuss course curriculum, procedures, deadlines, and required credentials before submitting the completed form to the Office of the Registrar.

## Comprehensive Examination

Graduate students planning to take a required comprehensive examination must be matriculated and currently registered each semester as they prepare for and take their comprehensives. If registered for no other courses, graduate students must register for maintenance of matriculation or for an examination preparation course offered by their academic department.
Master's degree candidates who are required to pass a comprehensive examination as part of their degree requirements should consult the Graduate Program Adviser in the program in which they are enrolled to determine the precise requirements for the degree in that program.
Students not successful on the first attempt at the comprehensives are urged to discuss their examination with their Program Adviser before taking the examination a second time. Students who are unsuccessful after two attempts will be dropped from the College. In order to take the examination a third time, students must appeal to the Graduate Studies

Committee no later than the third week of the semester immediately following their second unsuccessful attempt. If their appeal is successful, students then should apply for readmission through the Office of Graduate Admissions (Shuster Hall, Room 150). Filing an appeal does not in itself guarantee that any student will be granted a third attempt at the comprehensive examination. No further appeals are possible after a third unsuccessful attempt to pass the comprehensives.

## Thesis or Capstone Report

Graduate students researching and writing theses or capstone projects must be matriculated and currently registered each semester. Students must register for either maintenance of matriculation or for a thesis writing course offered by their department.

In curricula requiring a thesis or capstone project, the completed thesis or project must be presented to the department chair or adviser in sufficient time to enable the work to be evaluated, corrected, amended, and the grade to be recorded before the date on which the classes for that semester end. A candidate permitted to offer a thesis or other final project must consult the adviser for departmental requirements for preparation and final submission. The student must file with the thesis or project adviser the number of approved copies required by the program in which he/she is matriculated.

Students must submit an electronic copy of their thesis to the Leonard Lief Library. Electronic copies must be submitted on a CD formatted in a PDF file, or the format required by their thesis adviser. The CD must be accompanied by completed copies of the Digital Repository License Agreement and Checklist, which are accessible on the Library website. Prior to graduation, students must provide a copy of the Acknowledgement of Receipt to their graduate or thesis adviser. The Acknowledgement of Receipt is issued by the Library to the student after receiving all required submission materials.

## Time Limit for Earning a Lehman College Master's Degree

Master's degree candidates must complete their programs within five years from the time they begin their program and become degree-seeking graduate students. Absence from the College for one or more semesters does not alter or affect the five year limit (see Interruption of Studies) for earning a degree. Currently enrolled graduate students who, due to unusual circumstances, are unable to complete their degrees within the five-year period may apply for a two-year extension in the Office of Graduate Studies, Shuster 279. Extension requests will be reviewed by the Graduate Studies
appeals committee and the Academic Department offering the degree program for review and final decisions.

Extensions may only be granted once. In total, upon granting an extension, there will be seven permitted years to complete a graduate program. Failure to file an extension or to complete the degree within the granted timeline will result in the closing of the student record. Students with closed records will not be permitted to continue their studies in the incomplete graduate program.
Students who are not currently enrolled must adhere to the interruption of studies policy to be readmitted into the College.

## Interruption of Studies

Effective Fall 2019: After an absence of two semesters, up to three years, students seeking readmission must file a Graduate Application for Readmission with the Office of Graduate Admissions.
Following an absence of three or more years, previously matriculated graduate students must reapply to the College by submitting a new application. Upon re-acceptance into the program, the curriculum year and time limit for earning a master's degree will be reset and updated to the current semester. Students must then adhere to the current curriculum plan and policy standards. Any coursework older than seven years from the current term of re-acceptance into the master's degree program will not count towards the degree curriculum.
Students who have been absent for over seven years may not reapply to an incomplete program. See Seven Year Inactivity policy.
Non-matriculated graduate students must reapply to the College by submitting the Graduate Application for NonDegree Admission and pay the application fee following an absence from the College of any length.

Interruption of Studies Prior to Fall 2019
For previous bulletins click here

## Graduation Procedure

A student who expects to graduate at the end of a semester must file a formal application for graduation in the Office of the Registrar, Shuster Hall, Room 105, by the deadline published each semester in the Schedule of Classes. If the student does not graduate, he/she must refile for graduation in any subsequent semester in which graduation is anticipated.
Any incomplete grades (INC) on the graduate student's transcript must be resolved prior to the date of graduation. To resolve incomplete grades, students must either complete and hand in the missing work or, if the courses in question are not required for the degree, indicate to the Office of the Registrar
that they do not intend to complete the work. Students who choose not to make up the missing work are required to sign a statement in the Registrar's Office indicating their awareness that INC grades remaining on the transcript can never be changed to letter grades.

This policy applies even if the course in question is not applicable toward the degree being awarded, and even if the one-year time limit for finishing incomplete grades has not expired. The transcripts of graduated students are sealed at the time of graduation, and no changes can be made after the graduation date.
Students cannot graduate if the indication " $Z$ " appears in place of a grade on their transcript. The " $Z$ " indicates that the faculty member teaching that particular course did not submit a grade to the Office of the Registrar. The student is responsible for contacting either the faculty member or the department chair to ensure that a grade is submitted.

## Maintenance of Matriculation Fee

Effective: Fall 2019
Students not enrolled in courses in the Fall or Spring semester who need to maintain matriculation, are required to enroll for maintenance of matriculation and pay the appropriate fee. Students should enroll and pay this fee during the semester of absence. In the semester in which the degree is to be awarded, students must be either registered in courses or maintaining matriculation. The maintenance of matriculation fee cannot be waived.

Maintenance of Matriculation Fee Prior to Fall 2019
For previous bulletins click here

## Seven Year Inactivity

Any graduate student with seven years of inactivity from the College will have his/her record closed. Students may not use coursework from a closed graduate record, and the courses may not be applied towards future graduate programs.

## Registration Policies and Procedures

## Academic Advising

For graduate students, academic advising occurs at two levels:

- Each graduate program at Lehman College has at least one academic adviser to help in planning students' programs. Graduate students should consult frequently with their Program Adviser for information regarding their specific master's degree program, and they MUST see their Program Adviser before registering each semester. Frequent advisement is critical for acquiring up-to-date
information and for monitoring progress toward the master's degree.
- The Office of Graduate Studies (Shuster Hall, Room 279, provides information and advisement regarding Collegewide academic policies and procedures. Matters addressed by this office also include appeals (except grade appeals), changes of grade, academic retention and probation, academic standards, and transfer credit policies.


## Registration Information

Information regarding registration appointments are emailed to students. With the implementation of CUNYfirst, students can view their appointment on their CUNYfirst Student SelfService Student Center. Students may begin enrolling any time after their registration appointment date until 11:59pm the day before the semester begins without being charged a late registration fee.

## Registration for Graduate Courses

Most graduate programs require class permission(s) from the Graduate Program Adviser in order to register for courses. Consult the department for registration advising hours.

## Bursar's Receipt

The bursar's receipt is the only valid proof of registration in courses. Students are responsible for checking registration materials for any errors before submitting them to the Registrar for processing. For students registering by telephone, the system will repeat their course requests for verification. Report any error on the bursar's receipt to the Business Office immediately, accompanied by a request for a corrected receipt. Keep all bursar's receipts in case questions regarding registration arise at a later date.

## Registration in Undergraduate Courses

Graduate students who are advised by their Program Adviser to register for undergraduate courses should consult with the Office for Graduate Studies for registration assistance.
Undergraduate credits earned are not part of the graduate degree requirements and do not count toward the graduate degree. Graduate students pay undergraduate tuition. A graduate student may not register in a given semester solely for undergraduate courses unless he/she obtains permission from both the Graduate Program Adviser and the Office of Graduate Studies.

## Registration in Out-Of-Program Courses

A student who has been admitted to a specific graduate program, or has been given permission to take certain specific graduate courses, may not automatically register for other courses in other programs. Students may do so only if they obtain written permission from the graduate adviser in the
second program and receive permission from the Office of Graduate Studies.

## Registration in Courses at Other CUNY Colleges

Matriculated graduate students may take courses at other CUNY colleges with the permission of the Graduate Program Adviser or department chair and from the Office of Graduate Studies. (See Courses Taken on Permit (p. 19).) Permits and details regarding their use may be obtained from the Office of the Registrar, Shuster Hall, Room 112. Students must also contact the host college with regard to registration requirements. Graduate students from other CUNY colleges who wish to register at Lehman must file a non-matriculant application with the Office of Graduate Admissions (Shuster Hall, Room 150) and submit a permit from the Registrar of the home college.
The admission fee is waived for students attending Lehman College on permit.

## Credit Policies

## Residency Requirement

Graduate students in master's degree programs must complete as matriculated students at least one-half of the total graduate credits required to complete their Lehman College master's degree program, OR 18 graduate-level credits, whichever is greater.

Graduate students in certificate programs must complete at least one-half of the graduate-level credits required to complete their certificate program as matriculated students at Lehman College. This minimum number of credits to be taken after matriculation is known as the Residency Requirement. Due to the varied credit requirements of Lehman's graduate programs, students will generally have to complete somewhat more than the minimum residency requirement in order to graduate. No interpretation of this policy shall supersede the policy regarding Transfer of Credit outlined elsewhere in this graduate bulletin.
Six (6) credits of the Residency Requirement may be taken as permit classes at other CUNY colleges offering appropriate master's-level courses (see Permit Courses). Courses taken at non-CUNY institutions will not be counted toward the Residency Requirement. No part of the Residency
Requirement may be satisfied using courses taken prior to matriculation at Lehman College or courses taken as part of a previously awarded master's degree program.

## Exception:

Master's degree candidates from the Graduate School and University Center of The City University of New York (CUNY Graduate Center) may transfer to a senior college and complete the requirements for a master's degree, receiving
credit for all graduate work satisfactorily completed at the Center.

## Transfer of Credit

It is strongly encouraged that students who wish to have graduate credits transferred should apply during their first semester in attendance as a matriculated graduate student at Lehman using the Application for Transfer of Graduate Credit form available in the Office of Graduate Studies (Shuster Hall, Room 279). All credits to be applied toward a Lehman College master's degree are subject to the approval of the academic graduate adviser (or department chair) from the student's academic program and the Office of Graduate Studies. Transfer credits must conform to the regulations for the program and the curriculum in which the student is matriculated.

The following courses are eligible for transfer:

- Graduate courses taken within the last five years at other accredited colleges where no degree has been awarded. (12 credits maximum)
- Graduate courses taken within the last five years at Lehman College as a non-degree student. (12 credits maximum)
- Courses applied within the last five years toward a previously awarded and accredited graduate degree. (6 credits maximum)
- Graduate courses taken within the last five years at Lehman College as an approved student. ( 12 credits)

The following transfer credit regulations apply to all matriculated Lehman College graduate students:

- With appropriate permission, a maximum of 12 credits in total may be transferred toward a Lehman master's degree
- Only six 6 credits counted toward a previously awarded master's degree are eligible for transfer.
- Courses must be graduate-level and must be taken at accredited institutions offering master's degree programs.
- Grades of B or better in courses taken outside of Lehman College are required for eligibility.
- Courses taken more than five years prior to matriculation at Lehman will not be considered for transfer.
- Capstone clinical experiences such as student teaching, internship, or practicum in education, theses, and other, culminating master's degree projects taken at Lehman College or at institutions outside of Lehman are not considered for transfer to Lehman College master's degree programs.
- Students matriculated in Social Work may request transfer credits only toward the special topics/elective requirement.

When students have taken more than 12 credits prior to matriculation, Lehman College courses will be given priority, provided they meet the College's requirements.

## ADVANCED CERTIFICATE OR EXTENSION PROGRAM

Transferring credits from/into an advanced certificate or extension program are subject to: the approval of the academic graduate advisor and Office of Graduate Studies, the regulations of the Lehman program in which the student is matriculated, and the guidelines of the College's Residency Requirement.
The following additional limitations apply:

- Courses must be graduate-level and must be taken at accredited institutions offering master's degree programs.
- Grades of B or better in courses taken outside of Lehman College are required for eligibility.
- Courses taken five years or more prior to matriculation at Lehman are not considered for transfer.

NOTE: Students who have completed nine (9) or more credits prior to matriculation at Lehman, seek a second master's degree, or wish to apply their advanced certificate towards a master's degree are advised to fill out the application for matriculation at the earliest possible date.

## Courses Taken on Permit at Other CUNY Institutions

With appropriate permission, matriculated graduate students may take master's-level courses on permit at other colleges of The City University of New York and apply the credit toward the Lehman master's degree. Grades earned in these courses are treated the same as grades earned at Lehman College and are subject to the same restrictions. Grades in courses taken on permit will be recorded on the Lehman College transcript and will count in the computation of the Grade Point Average. No more than six (6) credits taken as permit classes may be counted toward the Residency Requirement.
Permits and details regarding their use are available from the Office of the Registrar, Shuster Hall, Room 112. All courses taken on permit must be approved by the Graduate Program Adviser or the department chair and the Office of Graduate Studies.

## Credit Loads

Effective: Fall 2019
A full-time program of coursework for graduate students requires a minimum of 9 academic credits or a combination of academic and equivalent credits for a total of 9 credits in any semester. Students may take no more than 18 credits of graduate work in any Fall or Spring semester without approval
from the Graduate Studies office. International students admitted to the United States on student Visas are required to complete at least nine (9) academic or equivalent credits each Fall and Spring semester.

## Certification of Full-Time Status

A matriculated graduate student may be certified as in fulltime attendance in any semester when taking at least 12 academic credits or a combination of academic and equivalent credits for a total of 12 credits. Students may receive 1-6 equivalent credits for such activities as teaching assistantships, research assistantships, thesis research and writing, preparation of the comprehensive examination, and fieldwork. Departments are responsible for documenting credit equivalencies.

Academic credits are prescribed in the departmental degree requirements in the Graduate Bulletin and contribute to the total credits required for the master's degree. Equivalent credits are never accepted toward the total credits required for the master's degree.
Credit Loads Prior to Fall 2019
For previous bulletins click here

## Grading Policies

Grades as submitted, to and recorded, in the Office of the Registrar are the sole judgment of the instructor. Students may not raise their grades by completing extra work after the final grade has been recorded. Occasional grading errors do occur, and these errors are corrected by submitting a grade correction form/request. Students who believe a grade is unfair may file a departmental grade appeal (see "Appeals (p. 23)" in this chapter of the Bulletin).

## Attendance Policy

Students are expected to attend classes regularly. Instructors, as well as departments or degree programs, may establish specific attendance requirements. It is the student's responsibility to ascertain the effect attendance may have on the grade in a course. Students receiving financial aid must be certified as attending classes regularly to maintain their eligibility.

## Continuation

Students, once accepted to an academic program, are subject to any continuation requirements as determined by their academic department. Such requirements are outlined in the pages in this bulletin that relate to the academic departments. Continuation requirements may include, but are not limited to, minimum overall Grade Point Average, minimum semester Grade Point Average, minimum grades to be achieved in
specific courses, completion of all prerequisite and corequisite courses, attendance and performance at fieldwork sites, purchase of liability insurance, and submission of required test scores. Failure to meet continuation requirements may result in additional required coursework over and above that outlined in the program requirements, repetition of designated classes for no academic credits, stopping out for one or more semesters, or termination of enrollment in the master's degree program.

## Grading System

The following academic grades are given in Lehman graduate programs: $\mathrm{A}, \mathrm{A}-, \mathrm{B}+, \mathrm{B}, \mathrm{B}-, \mathrm{C}+, \mathrm{C}$, and F .
W : The grade in any course from which a student officially withdraws prior to the published deadline, indicating that the withdrawal was without prejudice.

WN: This grade denotes a student never attended the course.
WU: Any unofficial withdrawal from a course and any official withdrawal after the published deadline. A WU counts as an F in computing the Grade Point Average.

INC: Incomplete coursework. The grade is given by the instructor to indicate a student has made satisfactory progress but, for good and sufficient reason, is unable to complete the course. INC grades must be removed by completion of course requirements within one year of assignment of the grade.
FIN: Failure to complete coursework by not resolving INC grade within one year. A FIN counts as an F in computing the Grade Point Average.
SP: Satisfactory Progress restricted to certain fieldwork, thesis or research courses requiring more than one semester for completion.

WA: Administrative withdrawal (e.g., failure to comply with the State law on immunization).
Z: Grade not submitted by the instructor. Z grades must be resolved prior to graduation.

## Grade Replacement Policy

As of September 1, 2017, graduate students are entitled to the following grade-replacement policy, which is limited to graduate-level courses: Students may repeat only one course for grade replacement within any one graduate program. The last grade received replaces the previous grade in the cumulative GPA, and credit will only be awarded once. Students will not be permitted to repeat courses in which they have previously received a grade of B or better. Courses in which a grade of B-, C+, C, F, WN, WU, or FIN is earned may only be repeated with both departmental and Office of Graduate Studies approval. The Grade Replacement Policy may not be used to replace grades in practicum,

| Grade Point Average (GPA) Computation Formula |  |  |  |
| :---: | :---: | :---: | :---: |
| Quality points (QP) are calculated by multiplying the credit value of each course by the numerical value of the grade received, 4.0 to 1.7 for grades A through C-, and 0 for F or WU. (See the following table.) |  |  |  |
|  | 2 CR | 3 CR | 4 CR |
| A (4.0) | 8.0 QP | 12.0 QP | 16.0 QP |
| A- (3.7) | 7.4 QP | 11.1 QP | 14.8 QP |
| B+ (3.3) | 6.6 QP | 9.9 QP | 13.2 QP |
| B (3.0) | 6.0 QP | 9.0 QP | 12.0 QP |
| B- (2.7) | 5.4 QP | 8.1 QP | 10.8 QP |
| C+ (2.3) | 4.6 QP | 6.9 QP | 9.2 QP |
| C (2.0) | 4.0 QP | 6.0 QP | 8.0 QP |
| C- (1.7) | 3.4 QP | 5.1 QP | 6.8 QP |
| F (0.0) | 0.0 QP | 0.0 QP | 0.0 QP |
| WU (0.0) | 0.0 QP | 0.0 QP | 0.0 QP |

- Add the number of credits taken, including those with F or WU grades.
- Divide the total number of quality points by the total number of credits attempted. This final figure is the GPA.

Both matriculated and nonmatriculated graduate students must maintain a minimum GPA of 3.0 to remain in good standing at Lehman College. Matriculants require a minimum GPA of 3.0 for graduation. Undergraduate-level courses and courses transferred from other institutions are not included in computing the GPA.

SAMPLE G.P.A. COMPUTATION

| Grade | Quality <br> Points |  | Credits <br> Attempted | Total <br> Quality <br> Points |
| :--- | :---: | :---: | :---: | :---: |
| A | 4.0 | x | 6 | 24.0 |
| A- | 3.7 | x | 4 | 14.8 |
| B+ | 3.3 | x | 3 | 9.9 |
| B | 3.0 | x | 2 | 6.0 |
| B- | 2.7 | x | 5 | 13.5 |
| C+ | 2.3 | x | 3 | 6.9 |
| C | 2.0 | x | 2 | 4.0 |
| C- | 1.7 | x | 4 | 6.8 |
| F, WU | 0 | x | 2 | 0 |
| TOTAL |  |  | $\mathbf{3 1}$ | $\mathbf{8 5 . 9}$ |

Number of credits taken $=31$

Division of 85.9 (sum of quality points) by $31=2.77$ G.P.A.)

## INC Grades

The grade of INC is awarded only when the course requirement has not been completed for good and sufficient reasons and when there is a reasonable expectation that the student can successfully complete the requirements of the course. The INC grade covers any failure to complete all requirements for a course, such as submitting a paper or taking a final examination. For an instructor to grant an INC, the student must have met the instructor's attendance requirements in the course and have a passing semester average.
A graduate student who receives a grade of INC (incomplete coursework) has a maximum of one year from the time the INC was entered on the transcript to collaborate with the instructor and complete the work. An INC grade entered in a fall semester, for example, must be completed before the end of the next fall semester. An INC grade that has not been made up within one year will change to a FIN grade (failure to complete coursework), remains permanently on the record, and counts as an F in computing the Grade Point Average.
A graduate student will receive a hold, issued by the Office of Graduate Studies, that will prevent registration for insufficient progress towards degree completion if two or more INC and FIN grades are acquired. Stops are removed once the student satisfies incomplete coursework.

INC grades cannot be made up after the student graduates (see also "Graduation Procedure (p. 17)").

## Cumulative Grade Point Average

In order to be awarded a master's degree, a graduate student must finish his/her program with a cumulative Grade Point Average (GPA) of $3.0(\mathrm{~B})$ or better. Grades counted in the cumulative GPA must be earned in graduate-level courses taken at Lehman College or in graduate courses taken on permit at other CUNY institutions, and all courses must appear on the student's Lehman transcript.

All grades in graduate-level courses will be counted in computing the GPA with the following exceptions:

- Grades earned in courses given by other institutions for which transfer credit has been allowed.
- Grades earned in undergraduate courses taken for undergraduate credit.
- Grades earned in graduate-level courses can be excluded from the GPA only through a successful appeal supported by Office of Graduate Studies and submitted to the Graduate Studies Committee (see "General Appeals" in this chapter of the bulletin). Graduate courses taken five (5) or more years prior to the current matriculation, or grades earned in courses unrelated to the current master's degree program, are excluded only upon appeal.


## SP Grade Option for Satisfactory Progress

The Satisfactory Progress (SP) Grade Option is part of Lehman's grading system. This new grade option will be restricted to certain graduate-level fieldwork, thesis, or research courses requiring more than one semester for completion.

The SP grade only will be valid for one year. Within the oneyear period, a student is expected to continue making sufficient progress. When the work is completed the instructor will submit a Change of Grade form indicating the letter grade earned. If a student fails to complete the coursework within the year, the SP grade will change to a grade of INC. From that point a student must comply with incomplete coursework (INC grade policy).

## Academic Probation

## Good Academic Standing and Probation

All graduate students, regardless of matriculation status, are expected to make appropriate academic progress and maintain a 3.0 (B) cumulative average or better in their courses. Grades of $\mathrm{B}-, \mathrm{C}+$, and C , while considered meeting course completion requirements, are considered marginal progress outcomes. Students earning a marginal progress grade in selected courses may be required to repeat and achieve a satisfactory progress grade in these select courses to continue in the program of study. (See specific program course descriptions for
requirement details.) Students may also be asked by their academic adviser to take a lighter course load until the GPA is improved.

Matriculated and non-matriculated students in special funded programs need to contact the program coordinators for details regarding their eligibility and continuation requirements.
Graduate students will be placed on academic probation when their cumulative GPA falls below 3.0. After attempting 9 or more graduate credits, those whose G.P.A. falls to or below a 2.50 (2.70 or lower in some programs) will not be granted an automatic probation period. Continuation in the program is granted only upon successful appeal to the Office of Graduate Studies. A letter of support from the academic department must accompany such appeals.
When a student is on academic probation, a probation indicator is placed by the Office of Graduate Studies. The probation indicator prevents affected students from registering until appropriate academic advisement takes place. Once an appropriate academic plan is agreed upon, the Office of Graduate Studies will lift the probation indicator so that the student may register for the current term. The probationary indicator will be replaced for future registration(s) or until the cumulative GPA is raised to 3.0 or above.
During the probation period, students may only enroll in courses that satisfy the degree curriculum.

A student may be on probation only once during their course of study. Students on probation, who achieve a semester index of at least 3.2 for each semester of probation and earn $100 \%$ of all credits attempted, will be permitted to extend his/her probationary period for a maximum of three registered terms.
Students who have met all graduation requirements except the possession of an earned cumulative GPA of 3.0 will be permitted to file an appeal for an additional semester of eligibility.
Graduate students on academic probation are not issued a graduate degree or advanced certificate.

Furthermore, students on academic probation may not take the comprehensive examination, or submit a thesis unless specific approval is granted by the academic department.

## CONTINUATION AND DISMISSAL

If the cumulative GPA remains below 3.0 at the end of the probation period, the student will be dismissed from the College. The decision to dismiss is not taken lightly and involves discussion between the academic department and the Office of Graduate Studies. Once a decision to dismiss is made, notification of dismissal is sent by the Office of Graduate Studies. Graduate students who have been dismissed at the end of the probationary period will be allowed to continue in their program only upon successful appeal to the

Office of Graduate Studies. The appeal must contain a written letter of support from the program advisor or Chair in the academic department

## Admission with Conditions

Students matriculated with conditions may be subject to more stringent academic requirements, including (but not limited to) the denial of the probationary period and the need to maintain a Grade Point Average higher than 3.0. Applicable conditions are set forth in the student's acceptance letter.

## Satisfactory Academic Progress

For Financial aid purposes a student is considered to have achieved Satisfactory Academic Progress (SAP) when they possess:

- A cumulative GPA of 3.0 or higher,
- Have earned credits toward graduation from $67 \%$ of all course work attempted,
- and have attempted no more than $150 \%$ of the credits required graduation.

In order to receive Title IV Federal Financial Aid, a graduate student must be making Satisfactory Academic Progress as previously defined. Students whose financial aid is denied for reasons of insufficient academic progress may file a written appeal with the Office of Graduate Studies.

## General Appeals

For a waiver of any of the College's regulations pertaining to graduate study, a student may petition the Graduate Studies Committee. Appeals are granted only for compelling reasons. To launch an appeal, students must submit a completed appeal form, available from the Office of Graduate Studies (Shuster Hall, Room 279), including a complete explanation of the issues involved and any relevant supporting documents. Supporting documents may include birth certificates, death certificates, letters from physicians, letters of support from faculty, and any documents that bear upon the case in question.

## Withdrawal from Courses

The grade of W (withdrawal without penalty) is assigned only when a graduate student officially withdraws from a course in CUNYfirst, Self-Service Student Center before the published deadline for each term. No faculty member or program adviser can withdraw a student from a course.

After the published deadline, students wishing to withdraw from a course without penalty can do so only by appealing successfully to the Office of Graduate Studies, Shuster Hall, Room 279 (see "Appeals (p. 23)" in this chapter of the bulletin). When students withdraw unofficially, i.e., the student simply stops attending class without completing the
withdrawal procedure, the grade of WU is assigned for the course. This grade counts as a failure in computing the cumulative Grade Point Average.

## Grade Appeals

A graduate student dissatisfied with his/her course grade should first discuss the situation with the instructor who assigned the grade. If the student is still not satisfied that the grade is fair, he/she should then consult the Graduate Program Adviser for the department in which the course was offered. The Graduate Program Adviser will then attempt to resolve the disagreement.
If the student is still dissatisfied, or if the program adviser was the instructor who assigned the grade originally, the student should appeal in writing to the department chair. If the chair is the instructor of the course in question, the senior member of the department Personnel and Budget Committee will act for the chair.

The chair will appoint a Graduate Grade Appeal Committee consisting of three faculty members from the department, all of whom have taught graduate courses. The Graduate Program Adviser may not serve on this committee.

The committee will examine all materials relevant to the appeal, submitted by both the instructor and the student, and will prepare a written report of its findings, either sustaining the original grade or recommending a change.
The chair will notify the student, the instructor, and the Office of Graduate Studies of the Committee's decision. If the Committee recommends a grade change, the chair will forward that recommendation (A-1) with the decision.

Grade appeals must be initiated in the semester following the entry of a permanent grade, and no grades can be changed after the date of graduation. The decision of the Graduate Grade Appeal Committee is binding on all parties.

## Academic Integrity

The most common but not the only forms of academic dishonesty are cheating on examinations and plagiarism, which is the appropriation of the words or ideas of another person, whether taken from print or electronic media, which are then passed off as one's own.

When academic dishonesty is suspected, the instructor will inform the student of his suspicions and the student's rights to:

- Receive any charges in writing;
- Remain silent without assumption of guilt;
- Receive from the instructor a copy of the Academic Integrity Statement; and
- Be advised of the instructor's intended sanction. The instructor and student may resolve the situation, either by agreeing that the suspicions are unfounded or agreeing
upon a sanction. Any sanction agreed upon at this point must be reported, together with the charges, to the department chair and to the Office of Graduate Studies. The instructor must report these facts in writing. If no agreement is reached between the student and the instructor, the instructor must report in writing his intended sanction to the department chair and to the student as soon as possible. Then:
- The student may appeal in writing to the department chair within three weeks of receiving notice of the intended sanction. If the chair is the instructor in question, the senior member of the department's Personnel and Budget Committee will act for the chair.
- The chair will appoint a committee of three Lehman faculty members from his/her department to adjudicate the matter within three weeks by majority vote.
- The Committee will send a written notification of its decision to the department chair, the student, the instructor, and the Office of Graduate Studies.
- Either the instructor or the student has the right, within three weeks of receipt of notification, to appeal the department decision in writing to the Senate Committee on Graduate Studies. The decision of this committee is final. No further appeals are permitted. The committee will notify the department chair, the student, the instructor, and the Office of Graduate Studies of its decision. If any part of the three-week period falls outside the regular semester, the first three weeks of the next regular semester shall apply.
- The Office of Graduate Studies will keep all records of such proceedings on file until the student's graduation, at which time the records will be destroyed.
If the charge of academic dishonesty is upheld, disciplinary penalties may be recommended by the Vice President of Student Affairs to the hearing panel composed of members of the Faculty-Student Disciplinary Committee, pursuant to the due process provisions of the Board of Trustees' Bylaws (Article 15.3). Such penalties, which may be imposed only through the Bylaws process, include but are not limited to: 1) suspension from the College or 2) expulsion from the College.


# Admission, Tuition and Fees, and Financial Aid 


#### Abstract

Tuition and Fees are subject to change. Please refer to the Lehman College website (www.lehman.edu) for the latest information.


## Admission to Graduate Degree Programs

The Lehman College graduate programs accept applicants who meet the College and departmental standards for admission to matriculated (degree) and non-matriculated (non-degree) status.

## Matriculants

A matriculant (degree student) is one who has received formal written acceptance by the College and department for work toward a specific graduate degree. Candidates for a Lehman graduate degree will be admitted unconditionally if they have no deficiencies in prerequisite undergraduate coursework and meet all other College and departmental entrance requirements. Conditional admission to matriculated status may be offered to applicants who have deficiencies in prerequisite undergraduate coursework, or who lack the minimum Grade Point Average. "Conditions" are defined, at the time of admission, as a limited number of specific undergraduate courses (normally, either a maximum of 6 credits that must be completed within one year or a maximum of 12 credits that must be completed in three semesters), or a Grade Point Average that must be maintained during either the first or the first two semesters of matriculation.

## General Admission Requirements for Matriculants

To be admitted, an applicant must:

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university. Submit official transcript(s) from all post-secondary institutions. Foreign transcripts must be evaluated by a Foreign Transcript Evaluation Agency. Approved evaluation agencies can be found on the National Association of Credential Evaluation Agencies website (www.naces.org). Official transcripts and other documents in languages other than English must be accompanied by a notarized English translation. The evaluation and translation should be completed 8-10 weeks prior to the deadline. Students in their final undergraduate semester should submit the official transcript of
coursework completed to date. Upon graduation, students must present additional transcript showing the degree awarded. Lehman graduates who have attended other colleges are required to submit official transcripts from those colleges.
2. Have demonstrated the potential to successfully pursue graduate study, that is, have attained a minimum undergraduate grade average of B in the field selected for the graduate major and a minimum grade average of B - in the undergraduate record as a whole (higher in some programs). For more specific information, see the Graduate Program Adviser.
3. In all but education programs, have taken a minimum of 18 credits of previous work acceptable to the appropriate department in the proposed graduate major. For education programs, consult the departmental Graduate Program Adviser.
4. Submit a 500 -word essay outlining your career goals.
5. If applying to the program in Accounting or Business, submitting an acceptable score on the Graduate Management Aptitude Test (GMAT) is optional.
6. If applying to the English program, History program, Public Health program or Speech program, submit a score on the Graduate Record Examination (GRE).
7. Submit letters of recommendation as required by the individual program.
8. If conditionally admitted, satisfy the conditions within the specified time period.
9. Meet additional departmental admission requirements, as specified.
10. If submitting academic records from a non-English speaking country, demonstrate competency in English through TOEFL IBT score of at least 61 or the Academic IELTS score of at least 6 (higher for some programs).

## Nonmatriculants

A non-matriculant (non-degree student) is one who may take courses for credit but has not been formally admitted to a degree program. Under this status, students are not eligible for any degree at Lehman College, nor does coursework taken as a non-matriculant guarantee admission to a degree program. If subsequently admitted to a degree program, the student can, with the approval of the Graduate Program Adviser(s), count a
maximum of 12 credits earned as a non-matriculated student toward the degree.

## Admission Requirements for Nonmatriculants

To register for courses as a non-matriculant, an applicant must:

1. Possess a bachelor's degree from an accredited college or university. Submit a transcript showing the award of an undergraduate degree.
2. Have a minimum undergraduate average of B-. (School of Education program applicants must have a minimum undergraduate average of B.)
3. To take graduate courses in Accounting, submit an acceptable score on the Graduate Management Aptitude Test (GMAT).
4. Obtain the approval of the department's graduate adviser. Please note that not all programs accept non-degree seeking students.
5. If submitting academic records from a non-English speaking country, demonstrate competency in English through TOEFL IBT score of at least 61 or IELTS score of at least 6 (higher for most programs).

## Students Without Bachelor's Degrees and Special Students

Professionals of exceptional ability may be admitted to graduate courses in the arts even though they have not earned a bachelor's degree. The admission of a special student requires approval of the appropriate department chair and the College's Office of Graduate Studies. Special students are not eligible for any degree.

## Lehman Undergraduates

With program approval undergraduate students with a declared major who are not registered for a dual degree program, have completed at least 90 credits with a cumulative GPA of 3.0 or above and who satisfy necessary pre-requisites may enroll in a total of twelve graduate credits during their senior year.

Graduate courses may not count towards Pathways requirements or the residency requirement for the major/minor. Graduate courses will be counted towards the calculation of Dean's List, Presidential Scholars, and departmental honors.
Grading will occur on the following system: A, A-, B+, B, B-, $\mathrm{C}+, \mathrm{C}$, and F .
Tuition will be charged in accordance with the tuition and fee manual. Full-time undergraduate students who receive permission to take graduate courses will be charged the undergraduate tuition rate for graduate courses which are
applicable to the student's undergraduate degree. (within the 120 credits required for graduation). If the student is parttime, the graduate rate will be charged for graduate courses and the undergraduate rate for undergraduate courses. Students receiving financial aid in the form of grants and/or loans should confirm that the additional charges will be covered by their aid by speaking to a Financial Aid Counselor.

Students who meet the eligibility requirements must get approval from the graduate program advisor and the Office for Graduate Studies. An Authorization Form is available from any graduate program advisor.

## Applying for Admission

The online application for admission (matriculant and nonmatriculant) may be found on the Office of Graduate
Admissions' web page at
http://www.lehman.cuny.edu/graduate-
admissions/applying.php.
Once on the Lehman College homepage, do the following:

- Click on the "Admissions" link.
- Click on "Graduate," from the drop down menu and select "Apply Now."


## Matriculants

A completed application for matriculation consists of the completed and submitted online application, official college transcripts of all past undergraduate and graduate work, letters of recommendation as required by the individual department, and, in some instances, test scores, i.e., the GRE, GMAT, TOEFL, G-NAT, OPI and, in some programs, an interview or audition. The number of recommendations required, the topic(s) and format of the application essay, the particular test required, and whether or not a personal interview or audition is required can be determined by referring to the portions of this bulletin that describe the individual graduate programs.

Completed applications must be on-file in the Admissions Office for fall admission by February 15 (Speech-Language Pathology and Social Work), March 15 (School of Health Sciences, Human Services \& Nursing and the School of Natural \& Social Sciences), April 15 (School of Arts \& Humanities and School of Education), May 30 (Liberal Studies) Applications for spring admissions must be on-file in the Admissions Office by October 1 (School of Health Sciences, Human Services \& Nursing and the School of Natural \& Social Sciences), October 15 (School of Arts \& Humanities, School of Education, and Liberal Studies). , Social Work, Public Health, Educational Leadership, and Counselor Education Programs accept applications only for fall admissions.. For more information, call the Graduate Admissions Office at 718-960-8777.

Admission to matriculated status requires review by the particular department the applicant wishes to enter. Only completed applications are put forward for faculty review.

## Nonmatriculants

For applicants wishing to enter the College as nonmatriculants, a completed application consists of the on-line application and college transcript(s) that show completion of an undergraduate degree and test scores
(GRE/GMAT/TOEFL) if required. Applications from prospective non-matriculants may be accepted through the registration period only, subject to available space in the desired program.

## Departmental Approval for Registration in Courses

All graduate students at Lehman College, should meet with their Graduate Program Advisor to ensure proper course selection, program planning, and in most cases to secure departmental approval. In most cases registration is not possible without department approval.
Students may contact the Office of Graduate Studies, graduate.studies@1ehman.cuny.edu, for assistance identifying an advisor, registering for courses, and/or navigating CUNYfirst.

## International Students

Lehman College is authorized under federal law to admit nonimmigrant-alien students. At Lehman, an "international student" is defined as any person studying in the United States on a nonimmigrant visa. The Test of English as a Foreign Language (TOEFL) is required for admission of international students, except for nationals of English-speaking countries. The required minimum TOEFL score is 500 for admission to Lehman and is higher in most fields. Information may be obtained from TOEFL/ Educational Testing Service, Princeton, NJ 08541-6151. Residents of English-speaking countries are exempt from taking the test.

All students on F-I or J-I visas must be full-time students every semester, carrying a course load of at least 9 credits, to qualify for and maintain this visa status. Form I-20 or IAP-66 will be issued to full-time students who have provided the required financial documentation to the Office of Admissions and have been admitted to the College. Qualified nonimmigrant aliens holding B (visitor) visas who wish to attend or have started attending Lehman College must apply through the International Student Adviser for a change of status to F (student) visa two months before their current B visa expires. The International Student Certification Officer can provide necessary documentation of the student's status at Lehman.

The College will not be responsible for any interruption and/or termination of studies and will not refund tuition or fees should the student be unable to obtain the required student visa or transfer and be required to leave the country before the end of a term. Students concerned about their status may consult with the International Student Certification officer as soon as possible.

All prospective or new International Students with student visas must consult the International Student Certification Officer before registration. The officer will inform students about immigration regulations and procedures, currency exchange, off-campus housing, and related matters of special concern to international students.

## Health

Students accepted for Lehman degree programs must have the physical and mental health that enables them to conform to all the College's academic requirements, including completion of the degree within a reasonable period.
Physical examinations are required by the College for programs and activities that may require certification of physical health.

## Immunization Registration Requirement

Students who do not submit proof of measles, mumps, and rubella (MMR) immunization or who fail to return the meningococcal meningitis response form within a statutory grace period shall be prohibited from attending the institution. For additional information, contact the Health Services Center located in Room 188 of the T-3 Building at 718-960-8900.
Public Health Law 2165 requires that postsecondary students be immunized against measles, mumps, and rubella (MMR).

All registered full-time students and part-time students born on or after January 1, 1957 who are enrolled for at least six, but fewer than twelve semester hours (or equivalent) per semester in an approved degree program or registered certificate program must submit proof of MMR immunization. Students may be exempt from the required MMR immunizations for religious or medical reasons. To qualify for a religious exception, students must submit a signed statement, or in the event the student is a minor (under 18), a signed statement from their parent or guardian, that they hold sincere and genuine religious beliefs that prohibit immunization. To qualify for a medical exception, students must submit a written statement from a licensed physician or nurse practitioner indicating that such immunization may be detrimental to their health.
Public Health Law 2167 requires that postsecondary institutions provide written information about meningococcal meningitis to its students and that students complete, sign, and return a meningococcal meningitis response form. Public

Health Law 2167 does not require that students be immunized against meningitis.
Public Health Law 2167 requires colleges to distribute written information about meningococcal meningitis disease and vaccination and students to complete, sign, and return to the college, a meningococcal meningitis response form that: (a) confirms that the college has provided the information about meningococcal meningitis; and (b) indicates that either: (1) the student has received immunization against meningococcal meningitis within the ten years preceding the date of the response form; or (2) the student has decided against receiving the vaccination. This law applies to students who are enrolled in at least six semester hours (or the equivalent) per semester. No student may be exempt from receiving information or returning the response form.

## Prohibition on Submission of Fraudulent Admission Documents

The submission of documents in support of applications for admission, such as transcripts, diplomas, test scores, references, or the applications themselves, that are forged, fraudulent, altered from the original, obtained under false pretenses, or otherwise deceptive is prohibited and is punishable by a five-year ban on applying for admission or five-year suspension from CUNY. A second violation is punishable by a lifetime ban on applying for admission or expulsion from CUNY.

## Admission of Students Who May Pose a Risk to the College

The College reserves the right to deny admission to any student if in its judgment, the presence of that student on campus poses an undue risk to the safety or security of the College or the college community. That judgment will be based on an individualized determination taking into account any information the College has about a student's criminal record and the particular circumstances of the college, including the presence of a child care center, a public school or public school students on the campus. In addition, the College may consider factors such as the amount of time since the crime was committed; the amount of jail time served by the student; the number of years the student was on probation or parole; whether the student has satisfied probation or parole requirements at the time of the student's application; whether the student has completed drug, alcohol, sex offender or other treatment; and what work or educational experience the student has had after the conviction. Finally, if the student is known to have been assisted by a CUNY-sponsored or other re-entry program or initiative, the college will consult with a counselor or representative from said program.

## Tuition and Fees

## Graduate Tuition

Tuition and fee charges are set by the Board of Trustees of The City University of New York. To find out the current tuition and fee rates, visit the Lehman College Website at $w w w . l e h m a n . e d u \backslash$ or call the Bursar's Office (718-960-8573).

## Board of Trustees Guidelines

All fees and tuition charges listed in this bulletin and in any registration material issued by the College are subject to change by action of the Trustees of The City University of New York without prior notice.
In the event of any increase in the fees or tuition charges, payments already made to the College will be treated as a partial payment, and notification will be given of the additional amount due and the time and method of payment
A resident student is a U.S citizen who has had his or her principal place of abode in the State of New York for a period of at least 12 consecutive months immediately preceding the first day of classes for the semester for which the residency determination is made and who states his or her intention to permanently live and maintain his or her principal place of abode in New York State.
A full-time graduate student is one who is enrolled for at least 12 credits or equivalent. A part-time graduate student is one who is enrolled for fewer than 12 credits or the equivalent.

For each student, the tuition and fees due depend on whether he/she will attend full- or part-time, whether or not he/she resides in New York State, and whether he/she is or is not matriculated.
All fees, tuition charges, credits, and course hours listed are subject to correction in the event of error. All fees, calculations, and repeat billings are subject to correction in the event of error. Students will be obligated to pay the correct amount.
The schedule of tuition fees shall apply to all scheduled semesters, regardless of duration, subject to such special tuition fee rates as may be established by the Board of Trustees of The City University of New York. The same policy applies to summer session, except that there is no maximum tuition. Summer session students must pay for all credits or credit equivalents taken.
A child of a member of the permanent staff of The City University of New York, or a child of a deceased or retired member of such staff who had served for more than five years on an annual salary, or a child of an employee of the City of New York or of a city agency who is required to live outside the State of New York in the performance of his or her official duties shall be charged resident rates. The resident rate shall
be applicable to a student of another college or university which grants, in exchange, resident rates to a student of a college within The City University of New York. Evidence of satisfactory educational qualifications must be presented, and the approval of the president of such college within the City University is required.
All recipients of financial aid should be aware that this aid is based upon the personal and financial information that the student provides to Lehman College. In the event that a student is determined not to be eligible, in whole or in part, for any expected financial aid for which he or she has applied, he or she will be held fully responsible for payment of any monies that are due the College for registration. If students withdraw, either officially (by filling out a withdrawal form in the Registrar's Office) or unofficially (by not attending classes), from any course or courses for which they have registered and a reduction in aid occurs, the student will be held personally responsible for payment of any monies due to the College.
All students who register for a course or courses must sign the statement of student liability and will be held responsible for all tuition and fees associated with their registration. All graduate students are required to pay a Student Activity Fee, Technology Fee, and Consolidated Fee for each semester that they are registered.

## Definition of Residency

A resident student is one who has had her/his principal place of abode in the State of New York for a period of at least 12 consecutive months immediately preceding the first day of classes for the semester for which the residency determination is made and who states his or her intention permanently to live and maintain his or her principal place of abode in New York State.

A person who is not a U.S. citizen but meets the residency requirements stated above must provide proof of his/her current immigration status.

## Payment Procedures

Students may pay their tuition and fees with the following options: cash, money order, credit/Debit card, bank check, traveler's check, or personal check. Payment can be made in person or by mail. The college will not accept a personal check form any student who has previously tendered a check that was returned by his/her bank.
Pay via mail using a check or money order; make the check or money order payable to Lehman College and mail to:
Lehman College
Bursar's Office, SH-031
250 Bedford Park Blvd. West
Bronx, NY 10468

Pay in person by cash, check, and money order at the Bursar's Office.

Pay online through CUNYfirst with an Electronic Funds. Please have all the necessary information ready when making an online payment including your bank account and routing numbers for EFT payments.
Effective with the Summer 2016 semester, the Enrollment Fee for the Payment Plan will be $\$ 95$ per term. For students and their families who opt for direct withdrawals from their bank accounts, a discount will be provided which will lower the Enrollment Fee to $\$ 40$ per term. The eCheck payment option through CUNYfirst Self-Service remains an alternative payment option that is cost effective since it does not require an Enrollment Fee.
If a student has an outstanding financial obligation that may be owed to Lehman College or any of its affiliated corporations, Lehman College officers or their designees are authorized to act as the student's agent to endorse and negotiate any checks that he/she may be entitled to receive from any source of financial aid: Federal, State, City, public or private, College or other, to the extent that such authorization shall be used to fulfill this obligation. This authorization is effective as long as there is an outstanding balance owed for any semester.

Students who do not make full payment on their tuition and fees and other College bills, and whose accounts are sent to a collection agency, will be responsible for all collection costs, including agency fees, attorney fees, and court costs, in addition to whatever amounts the student owes the College. In addition, non-payment or a default judgment against the account may be reported to a credit bureau and reflected in the student's credit report.

Financial aid: Matriculated students who are recipients of financial aid must present proof of their awards at the time of registration. They will be required to pay any difference if the financial aid does not fully cover the amount due. All recipients of financial aid should be aware that if they fall below full-time enrollment because of withdrawal or cancellation of a course or courses, they may no longer be entitled to their financial aid. Students who use TAP, Pell Grant funds, or any other financial aid toward meeting their financial obligation should consult with the Financial Aid Office about any impact on their current semester entitlement and future semester awards. Students who are not eligible for financial aid must pay tuition and fees in full on the day of registration.

| Graduate Tuition |  |
| :---: | :---: |
| New York State Residents |  |
| Matriculated full-time students: | \$5,545.00 per semester |
| plus | \$74.60 (Student Activity Fee) per semester |
| and | $\$ 15.00$ (Consolidated Fee) per semester |
| and | $\$ 125.00$ (Technology Fee) per semester |
| Matriculated part-time students: | \$470.00 per credit |

plus
and
and
\$54.60 (Student Activity Fee) per semester $\$ 15.00$ (Consolidated Fee) per semester
$\$ 62.50$ (Technology Fee) per semester

Master's of Social Work
Residents:

| Full-Time | $\$ 7,315.00$ per semester |
| :--- | :--- |
| Part-Time | $\$ 620.00$ per credit |
| Excess Hours | $\$ 65.00$ per credit |
| Maintenance of Matriculation | $\$ 210.00$ per semester |
| Nonresidents: |  |
| Full-Time | $\$ 1000.00$ per credit |
| Part-Time | $\$ 910.00$ per credit |
| Excess Hours | $\$ 85.00$ per credit |
| Maintenance of Matriculation | $\$ 340.00$ per semester |

## Additional fees payable by students

Graduate students who enroll in classes which have excess Contact Hours (exceeding the credit rate) are to be charged $\$ 65$ for In-State and $\$ 85$ for Out-of-State for each contact hour.

Excess Hours are contact hours (class hours) in excess of credit hours. Graduate students taking classes that have more contact hours than credit hours pay in excess contact hour charge. For example if a 3-credit class meets 5 hours a week, a NY State resident pays $\$ 65$ per excess contact hour ( $\$ 130$ for 2 extra hours) and a non-NY State resident pays $\$ 85$ per excess contact hour ( $\$ 170$ for 2 extra hours).

## Non-New York State Residents, Including Foreign Students:

| Full-time <br> students: | $\$ 855.00$ per credit |
| ---: | :--- |
| plus | $\$ 74.60$ (Student Activity Fee) per <br> semester |
| and | $\$ 15.00$ (Consolidated Fee) per semester <br> and |
| Part-time <br> students: | $\$ 855.00$ (Technology Fee) per semester |
| plus | $\$ 54.60$ (Student Activity Fee) per credit <br> semester <br> and |
| $\$ 15.00$ (Consolidated Fee) per semester <br> and | $\$ 62.50$ (Technology Fee) per semester |

*Tuition and fees are subject to change by action of the Board of Trustees of the City University of New York.

## Non-instructional Fees

| Graduate Application Fee | \$75 (Effective Fall 2019) <br> Nonrefundable |
| :---: | :---: |
| Student Activity Fee | \$73.15 Full-time (Fall and Spring) |
|  | \$53.15 Part-time (Fall and Spring) |
|  | \$36.65 (Summer Session) |
| Senate Fee | \$1.45 (Fall, Spring, and Summer Sessions) |
| Consolidated Service Fee | \$15.00 (Fall, Spring, and Summer Sessions) |
| Technology Fee | \$125.00 Full-time (Fall and Spring) |


| Maintenance-of-Matriculation Fee (required to |  |
| :--- | :---: |
| maintain academic status): | $\$ 225.00$ |
| New York State residents | $\$ 370.00$ |
| Out-of-state residents | $\$ 25.00$ |
| Special Examination Fee: When make-up final <br> exam for one course is taken after scheduled final <br> class exam | $\$ 5.00$ |
| Each additional makeup exam taken during that <br> semester | $\$ 7.00$ |

(NOTE: No fee is charged for transcripts sent between City University units.)

| Duplicate Bursar Receipt | $\$ 5.00$ |
| :--- | ---: |
| Duplicate CUNY Card | $\$ 10.00$ |
| Duplicate diploma or certificate in lieu of a <br> duplicate diploma | $\$ 30.00$ |
| Qualifying Examination Fee (for granting credit for <br> courses taken outside CUNY or for pre- or <br> corequisites waived for required courses, per exam) | $\$ 30.00$ |
| Cooperating Teachers Fee <br> Change-of-Program Fee (for students who change <br> their schedule of classes after it has been approved <br> and recorded) | $\$ 18.00$ |
| Late-Registration Fee | $\$ 25.00$ |
| Nonpayment Service Fee (for students who are <br> delinquent in making payment of any amount due <br> after the scheduled due date) | $\$ 20.00$ |
| Readmission Fee | $\$ 20.00$ |

(NOTE: Students who apply to return to the College after an absence of one semester or more (exclusive of summer session) are required to pay this fee to be readmitted to the same unit. The charge is applicable whether or not a student has taken a formal leave of absence. Not applicable to students who have paid graduate Maintenance-ofMatriculation fees for semesters during which they did not take courses. Readmission is only for Matriculated students.)

## Payment Reprocessing Fee

$\$ 20.00$
(Charge for those students who have previously submitted checks payable to the College that were not honored by their banks: students who do not make a check good by a given date will be required to satisfy their obligations and pay the applicable reprocessing fee plus a nonpayment service fee.)
Cooperating teachers may be granted tuition waivers of up to 6 credits (two valid certificates) per semester, limited to a maximum of 18 credits. For courses for which tuition is waived, charges for excess contact hours are also waived. Tuition waivers may be granted to residents and nonresidents and are applicable to graduate courses and undergraduate courses. (They are exempt from payment of the Student Activity Fee, but must pay the Consolidated Service Fee and Technology Fee.)
Cooperating teachers who take credits in excess of those waived are required to pay tuition at applicable regular rates for the additional credits.

## Academic Excellence Fees

| Master of Science in <br> Accounting: | $\$ 65.00$ per credit up to a maximum <br> of $\$ 325.00$ per semester |
| :--- | :--- | of $\$ 325.00$ per semester


| Master of Science in | $\$ 65.00$ per credit up to a <br> maximum of $\$ 325.00$ per semester |
| :--- | :--- |
| Business: | man |

## Miscellaneous Fees

## Parking Fees

Cars/Motorcycles:
Day or Evening Session: $\$ 55$ per semester
Purchase permit in Shuster Hall, Room 078.
Breakage: As per damage
Loss of Key: $\$ 1.75$ (Shuster Hall, Room 031)
Loss of Equipment/Supplies: List Price
Library Fines
Overdue Books:*
*General Circulation: 10\& per day
*Reserve: 17\& per minute with a maximum fine of $\$ 5.00$
*Study Rooms: after initial two-hour period, fines accrue at $5 \phi$ per minute thereafter
*Damaged Books: Based on amount of damage, not to exceed replacement cost plus $\$ 5$ processing charge.
*Lost Books: Replacement cost plus a maximum of \$15 processing charge

Overdue charges are not applicable for days on which the Library is closed.
Overdue charges are applicable to lost or damaged books.
*Subject to change

## Special Requirements on Payments

All graduate matriculants and nonmatriculants must pay their tuition, Student Activity Fee, Technology Fee, and Consolidated Fee at the time they register. The amounts per credit and per excess contact hour also apply to undergraduates taking courses for graduate credit. Graduate students taking an undergraduate course pay nondegree undergraduate tuition for that course.
Students who have not met all their financial obligations to the College will not be issued a transcript, certificate, degree, or grade until they have made all outstanding payments. Students will not be allowed to register for a new semester unless they have satisfied all previous financial obligations to the College.

Students who do not make full payment on their tuition and fees and other college bills, and whose accounts are sent to a collection agency, will be responsible for all collection costs, including agency fees, attorney fees, and court costs, in addition to whatever amounts the student owes the College. In addition, non-payment or a default judgment against the
account may be reported to a credit bureau and reflected in the student's credit report.

## The City University of New York Policy on Withholding Student Records

Students who are delinquent and/or in default in any of their financial accounts with the College, the University, or an appropriate State or Federal agency for which the University acts as either a disbursing or certifying agent, and students who have not completed exit interviews as required by the Federal Perkins Loan Program, the Federal Family Education Loan Programs, the William D. Ford Federal Direct Loan Program, and the Nursing Student Loan Program, are not to be permitted to complete registration, or issued a copy of their grades, a transcript of academic record, certificate, or degree, nor are they to receive funds under the Federal campus-based student assistance programs or the Federal Pell Grant Program unless the designated officer, in exceptional hardship cases and consistent with Federal and State regulations, waives in writing the application of this regulation.

## Refunds

By action of the Board of Trustees of The City University of New York, the following regulations govern remission of tuition and fees:

## Refunds of Fees

The Student Activity Fee, Consolidated Fee, and Technology Fee, or any part thereof, is not refundable at any time except when the student's registration is canceled because of withdrawal of a course or courses by the College or the student totally withdraws prior to the start of classes and is granted a 100 percent refund of tuition. No portion of any special fee, parking fee, and any fine or penalty fee is refundable.

## Refunds of Tuition

Withdrawal and refund requests should be made in the Office of the Registrar (Shuster Hall, Room 114). The date on which this form is completed and filed, not the student's LAST day in class, is the official date of withdrawal that serves as the basis for computing a refund.

Non-attendance in classes does not waive the tuition liability a student incurs at registration. Any student who is unable to file for withdrawal from a course in person may do so by mail. The official date of withdrawal will be the date the letter is postmarked.
The interval between a properly executed application for a refund and receipt of a refund check is usually five weeks. Students dropping courses will be refunded according to the dates within this schedule. Students may receive a $100 \%$ of
tuition refund for voluntarily withdrawing from a class up to, and not including, the first day of classes. The first day of classes is not the first day of THE STUDENT'S class but, rather, the College's opening day of classes for the semester or session.

As a result of the Higher Education Reauthorization Act, students who are recipients of Federal financial aid are subject to one of the following Federal Refund Policies (subject to change):

## Withdrawals and the Return of Federal Financial Aid

Federal student aid is awarded with the expectation that you will attend school for the entire period for which your financial aid was awarded. To establish eligibility for any federal financial aid payments, you must complete the college's registration and bill payment process and begin attending your classes. It is strongly advised that you consult with the Financial Aid Office if you drop or withdraw from a class(es). [Note: if you receive a financial aid payment for a class or classes you have never attended, you must return that payment immediately to the college.]

Once you start attending classes, the federal government requires that you "earn" your financial aid awards in direct proportion to the number of days in the semester that you do attend. If you completely withdraw from school before completing the term, the school must calculate according to a federally approved formula the portion of financial aid you have earned and are therefore entitled to receive up to the time you withdrew.

For additional information please visit the following page: http://www.lehman.edu/financial-aid/withdrawals.php

All other students are subject to the following tuition refund schedule approved by the Board of Trustees:

| Withdrawal (Fall/Spring) | Refund | Summer |
| :--- | :---: | :---: |
| Before the first day of classes | $100 \%$ |  |
| Withdrawal to register at another | $100 \%$ |  |
| CUNY college | $75 \%$ | $50 \%$ |
| Through first week of classes | $50 \%$ | $25 \%$ |
| Through second week of classes | $25 \%$ | None |
| Through third week of classes | None |  |
| After the end of the third week of <br> classes |  |  |

## Special Provisions for Students in the Military

The following policies apply to students who leave CUNY to fulfill military obligations.

1. Students called up to the reserves or drafted before the end of the semester:
a. Grades. In order to obtain a grade, a student must attend 13 weeks (five weeks for summer session).
b. Refunds. A student called up to the reserves or drafted who does not attend for a sufficient time to qualify for a grade is entitled to a $100 \%$ refund of tuition and all other fees except application fees.
2. Students who volunteer (enlist) for the military:
a. Grades. Same provision as for students called up to the reserves. In order to obtain a grade, a student must attend 13 weeks (five weeks for summer session).
b. Refunds. The amount of the refund depends upon whether the withdrawal is before the 5 th week of classes.
i. Withdrawal before the beginning of the 5 th calendar week (3rd calendar week for summer session): $100 \%$ refund of tuition and all other fees except application fees.
ii. Withdrawal thereafter: $50 \%$ refund.
3. Other provisions for Military Service:
a. Resident Tuition Rates. These lower rates are applicable to all members of the armed services, their spouses, and their dependent children, on full-time active duty and stationed in the State of New York.
b. Re-enrollment of Veterans. Veterans who are returning students are given preferred treatment in the following ways:
i. Veterans who were former students with unsatisfactory scholastic records, may be readmitted with a probationary program.
ii. Veterans, upon their return, may register even after normal registration periods, without late fees.
iii. Granting of college credit for military service and armed forces instructional courses.
iiii. Veterans returning too late to register may audit classes without charge.
c. Late Admissions. Veterans with no previous college experience are permitted to file applications up to the date of registration, and are allowed to begin classes pending completion of their application and provision of supporting documents.
d. Readmission Fee. Upon return from military service, a student will not be charged a Readmission Fee to register at the same college.
e. Veterans Tuition Deferrals. Veterans are entitled to defer the payment of tuition pending receipt of veterans' benefits.
f. New York National Guard Tuition Waivers. Active members of the New York National Guard, who are legal residents of New York State and who do not have a
baccalaureate degree, are eligible for a tuition waiver for undergraduate study.

## Refund of Tuition and Fees to TAP and other Financial Aid Recipients

Students who withdraw during the refund period and have been awarded a full New York State Tuition Assistance Program (TAP) entitlement may elect to use their entitlement as credit toward their current financial liability and, consequently, will forfeit one semester of TAP eligibility; or they may elect to return their TAP award to the Corporation (advantageous only if a small liability is incurred), retain the semester's TAP eligibility, and reimburse the College for any money due.

- Students who withdraw during the refund period with partial TAP entitlements that are not large enough to cover their tuition liability will be required to pay the difference.
- Students awarded financial aid who change their status from full-time to part-time and vice versa must visit the Financial Aid Office, which will adjust their award.
- Students who withdraw after the refund period may relinquish their TAP entitlement and remaining financial aid award for the withdrawn semester.


## Courses with Credit Equivalent Hours

Lehman College courses generally carry a credit value equal to the number of weekly contact hours. In certain coursesgenerally developmental or compensatory in nature-the number of weekly contact hours may exceed the credit value. These additional contact hours are designated "credit equivalents" or "equated credits." For courses with credit equivalents, tuition is charged on the basis of contact hours and not of credits. Even if a course offers no credit, it is nevertheless billed according to contact hours. The maximum semester rate applies to these courses alone or in combination with credit-bearing courses.

## Financial Aid Programs and Requirements

Information on financial aid is available at www.lehman.edu/financialaid or in the Financial Aid Office (Shuster Hall, Room 136). Both full-time and part-time matriculated graduate students are eligible for a limited number of financial aid programs. Full-time graduate students are those registered for at least 12 credits (or the equivalent) per semester. Part-time students are those registered for at least 6 graduate credits per semester.

All financial assistance awards are subject to student compliance with Federal, State, and/or College regulations concerning satisfactory academic progress and academic standing. For more information, visit www.lehman.edu/financialaid.

## New York State Programs

Tuition Assistance Program (TAP). Only full-time (12 or more credits) graduate matriculants are eligible for this program. To apply for TAP, students should complete a Free Application for Federal Student Aid (FAFSA) and the HESC/TAP. Form. Applications are required annually. Application is made by filing a Free Application For Federal Student Aid (FAFSA) via the Internet at www.fafsa.ed.gov. Lehman College's Federal Title IV code is 007022. Additional information may be obtained in the Financial Aid Office, Shuster Hall, Room 136, or at www.lehman.edu/financialaid.
The Federal Direct Loan Program provides loans for graduate students who are enrolled for courses totaling at least 6 credits per semester. The maximum amount granted per year is $\$ 8,500$. Students must first file a FAFSA. Form. An application and additional information may be obtained in the Financial Aid Office, or at www.fafsa.ed.gov.

Graduate Assistantships are awarded on the basis of academic ability and achievement. The duties of graduate assistants may include teaching, research, laboratory work, and similar assignments as specified by the student's academic department. Students who are interested in an assistantship should consult the appropriate department chair.

## Federal Programs

## Federal Direct Unsubsidized Student Loan Program

provides unsubsidized loans for graduate students who are enrolled for courses totaling at least 6 credits per semester. Students must first file a FAFSA at www.fafsa.ed.gov. For additional information visit
http://www.lehman.cuny.edu/financial-aid.
Federal Perkins Loan Program: Application is made through the Financial Aid Office by filing a FAFSA at www.fafsa.ed.gov. Loans are available to students enrolled with at least 6 or more graduate degree credits. For additional information visit http://www.lehman.cuny.edu/financial-aid.
NOTE: Students whose Perkins loans have been discharged in bankruptcy are not eligible to receive further Perkins loans.
For more information please go to
http://www.lehman.cuny.edu/financial-aid.
Federal Work-Study Program (FWSP): Application is made through the Financial Aid Office by filing a FAFSA at www.fafsa.ed.gov. The applicant must be enrolled in courses totaling at least 6 graduate degree credits. Students may work up to 20 hours per week when classes are in session. For more information visit http://www.lehman.cuny.edu/financial-aid.
For more additional financial aid information visit http://www.lehman.cuny.edu/financial-aid.

## Campus Facilities and Resources

## Academic Facilities

## The Leonard Lief Library

Named for the founding President of Lehman College, the Leonard Lief Library is a state-of-the-art research facility housed in a modern, four-story building. The collections, library faculty and staff, and programs support Lehman's undergraduate and graduate curriculum. Reference librarians provide research support to students, faculty, and visitors, and offer bibliographic instruction. In addition to the Reference Desk and instructional support, library faculty is available by appointment for individual consultation.
The library website [http://www.lehman.cuny.edu/library/] is a dynamic information portal with links to the CUNY+ library catalog, nearly 200 online databases, numerous electronic journals, plus recommended authoritative research websites. These electronic resources are available to the Lehman community both onsite and off-campus. An open stacks book collection of 682,848 volumes is supplemented by a microfilm collection and growing multimedia holdings. The Library is a designated Federal depository for government documents, open to community members by appointment.
CUNY students and faculty may borrow books from all CUNY libraries, and Interlibrary Loan services are available to faculty and graduate students. A continually updated Reserve collection includes textbooks, journal articles, and course materials.

Library collections and services include the following

- Laptops, iPads, and eReaders may be borrowed at the Circulation Desk
- State-of-the-art laboratory classrooms, equipped with audiovisual technology and computer resources, are used for research training by library faculty. These open labs provide students with Internet access and academic program software.
- The Access and Technology Center, located on the second floor, provides assistive equipment and software for students with special needs.
- The Graduate Research Room on the first floor contains computer resources reserved for this special constituency.
- The Education collection, supporting the School of Education, holds journals, K-12 curriculum materials, a special instructional collection of children's books, as well as computer access.
- The Periodicals unit on the Concourse level contains current print journal titles, bound volumes, and microfilm equipment.
- Special Collections encompasses College records, rare books, digital resources, and the Bronx Institute Archives [local oral histories, books, atlases, photographs, and documents].
- A limited number of Group Study Rooms are available for small student groups.

The Library publishes a newsletter, prides itself on the active scholarship of its faculty, and offers Readings Series, exhibits, lectures, and film screenings to Lehman and the surrounding community. We regard ourselves part of the Bronx, international library, and global communities.

## Computer and Instructional Technology Facilities

The Division of Information Technology oversees the development of IT infrastructure and the coordination of IT operations and services across the campus. Technology support for students, staff, and faculty is provided by a College-wide IT support team and specialists in department labs, school offices, and the central IT facilities. IT Division staff members provide consulting, documentation, technical assistance, and related support to the Lehman community.

The Division of Information Technology Resources provides access to centralized computing and related technologies in support of the College's instructional, research, and administrative activities. Lehman's Information Technology Center (ITC) is located on the plaza level of Carman Hall. The facility houses eight PC and Macintosh computer labs for course instruction, an open lab with over 100 computers for student use, shared printing facilities, a dedicated faculty lab, and a help desk. The IT Division also operates a satellite help desk in the Library.

The campus is networked on a high-speed backbone providing access to the Internet as well as CUNY and campus resources. These include electronic mail services, the Lehman Connect campus intranet, CUNY-wide systems including the CUNY Portal and, the Blackboard online learning management system; CUNYfirst for online course registration and related administrative functions; and remote library and specialized departmental resources. Wireless access to the network is also available throughout the campus.

Approximately 200 of Lehman's lecture halls and classrooms are technology-enhanced or smart classrooms, and facilities for video conferencing and distance learning are available, assisted through the Multimedia Center, Media Technology Services, housed in Carman Hall, provides equipment and technical support for classroom use, college events and media presentations. Other specialized services and facilities include a media conversion lab to assist faculty in developing electronic-based course materials.

The College makes available specialized equipment for students with disabilities. All rooms are accessible by persons with disabilities, and specialized hardware and software for visually or hearing-impaired persons are provided. Students may also use the facilities of the Assistive Technology Center, located in the Library.
In addition to the centralized facilities, IT and other departments operate computer labs to support disciplinespecific applications, such as a graphics-based computer lab and a 3-D printing facility in the Department of Anthropology; three Computer Graphics and Imaging Labs in the Department of Art; a Laboratory of Geographic Information Technologies in the Department of Earth, Environmental, and Geospatial Sciences; a multimedia language laboratory in the Department of Languages and Literatures; multiple facilities for radio, television, and film productions in the Department of Journalism, Communication, and Theatre; and specialized computer labs in the School of Education, the School of Continuing and Professional Studies, the Departments of Biological Sciences, Economics and Business, Mathematics and Computer Science, Nursing, Sociology, and Social Work. The Library, the Academic Support Center, the Science Learning Center, the CUNY Macaulay Honors College at Lehman, and the Student Life Building also have computer resources available.

Students may request information about IT resources and services, including IT Center hours of operation and technical assistance, by visiting the IT website at www.lehman.edu/itr, sending an e-mail to helpdesk@lehman.cuny.edu, or visiting in-person at the ITR Open Center (Carman Hall, Room 111).

## The Language Laboratory

The Department of Languages and Literatures has one multimedia language laboratory. The laboratory, which is located in Carman Hall, Room B-37, has twenty-eight networked computers and software programs that correspond to the texts used to study the languages taught at Lehman. The computers in this laboratory have high-speed connection to the Internet, sound cards, headsets, CD/DVD players, and microphones. In addition, a set of special software programs from Tandberg is installed: Imperata, Divace Solo, and Library Pilot.

- Imperata is used for classroom management. It can be used to monitor student activities, provide mouse/keyboard control/collaboration between a pair of student computers, and share individual computer screens. Additional features include the creation of special files called electronic portfolios. An electronic portfolio contains all of the elements an instructor requires to conduct class sessions in a computer lab: a view of the classroom; lesson plan objectives; relevant links to the Internet or other shared directories; the ability to upload files/folders; and the operations used for managing a classroom in a computer environment.
- Divace, which stands for Digital Interactive Audio Video Recorder, allows students/instructors to play audio/video and also to record and author their own audio material.
- Library Pilot currently functions as a database for online links to language-related websites.
These computers are also linked to a digital video server; students can study from the language software stored on the server and digitally record their voices for oral and audio practice. Accommodation is provided for visually impaired and disabled students. Zoomtext, used to magnify text, is installed on one computer. The software Jaws, used by blind individuals, is installed on one computer. One computer station is designed to accommodate an individual using a wheelchair.


## Advanced Imaging Labs

The Art Department, in conjunction with Lehman's Department of Mathematics and Computer Science, has established three advanced imaging labs in the Fine Arts building. One lab (in Fine Arts, Room 047) contains twenty up-to-date Mac work stations with new Epson Flatbed Scanners, a Nikon Supercool Film/Slide Scanner, and a Xerox 7700 color printer. A second lab (in Fine Arts, Room 006) contains fifteen Mac work stations with Epson flatbed scanners. These teaching labs give students the opportunity to learn digital imaging, desktop publishing, webpage design, computer animation, advanced 3-D modeling, and multimedia interactive programming. In addition, a third lab (in Fine Arts, Room 006), dedicated to advanced student and faculty digital imaging, contains several Macintosh G5 computers and printers and additional high-end digital imaging and largeformat printing equipment.

## Science Laboratories

Significant research and training facilities are available in the Lehman science departments.

In the Department of Biological Sciences, the
Phytochemistry Laboratory is a newly renovated facility in Davis Hall (Room 119). It is fully equipped with instruments used for the identification and purification of natural products,
including a gas chromatograph, high-performance liquid chromatographs (HPLC), and a liquid chromatograph-mass spectrometer (LC-MS). The Molecular Biology Research Facility contains sophisticated instrumentation for molecular biology, cellular biology, and biochemical research. The equipment includes a D.N.A. synthesizer, HPLCs, ultracentrifuges, high-speed centrifuges, phosphorim ager, scanning spectrophotometers, electrophoresis systems for a protein and nucleic acid analysis and DNA sequencing, and computers for integration with the instrumentation. Bioimaging facilities include a confocal microscope, fluorescence microscopes, and scanning and transmission microscopes. There is a recently built research greenhouse, as well as an older greenhouse.

A Biological Sciences Computer Center is integrated into the research instruments in the Biological Sciences Department and enables students to learn how to operate state-of-the-art scientific instruments. The Center has real-time videoconferencing capabilities to allow faculty to incorporate research results and access the Internet while teaching courses.

Noteworthy research equipment and facilities in the Department of Chemistry include nuclear, magnetic, and electron paramagnetic resonance spectrometers, uv-visible and Fourier transform infrared spectrophotometers, gas, and high-pressure liquid mass-spectrometer-interfaced chromatographs, teaching and research labs, and a student computing facility.
The Department of Physics and Astronomy is conducting cutting-edge research in nanoscience, quantum optics, and string theory. Undergraduate and graduate students are involved in research that is supported by grants from the National Science Foundation, the U.S. Department of Energy, and the U.S. Department of Defense.

The Department of Anthropology houses research laboratories in anthropological genetics, archaeology, osteology, and paleoanthropology, a secured forensic evidence facility, and a teaching laboratory. The department has developed an extensive human and primate osteologic and fossil cast collection that is used for classroom laboratory exercises and independent student research. The osteology and paleontology laboratories are equipped with traditional osteological measurement tools along with a 3D laser surface scanner, a 3D digitizer, a 3D printer, and computer workstations for 3D morphometric analysis and visualization. The archaeobotany laboratory is equipped with Leica microscopes, slide preparation, and a comparative library of fixed pollen samples for the analysis of archaeological pollen samples. The anthropological genetics laboratory is equipped with molecular biology instrumentation for DNA extraction,
genotyping, sequencing library preparation, and computational analysis.

All these departments and researchers have easy access to the academic computing facilities at the College as well as the mainframe computer at the City University Computer Center.

## Instructional Support Services Program

The Instructional Support Services Program (ISSP) is dedicated to facilitating the academic development of Lehman students at the graduate level. The ISSP provides individual and group tutoring in addition to other instructional programming through the Academic Center for Excellence (ACE), located in the Old Gym Building, Room 205, and the Science Learning Center (SLC), located in Room 133 of Gillet Hall. See www.lehman.edu/issp.

## New York Botanical Garden

Under an agreement with CUNY, a number of staff members of the New York Botanical Garden offer courses in Lehman's Department of Biological Sciences. This arrangement makes specialized material, equipment, and collections available to Lehman students and provides facilities for research under exceptionally favorable conditions. The Museum of the Botanical Garden contains a library of about 65,000 volumes; a herbarium with some three million specimens, which provides excellent opportunities for research in taxonomy, ecology, and phytogeography; and special rooms for the cryptogamic collections. The collection of living plants on the grounds and in the greenhouses provides a wealth of material, with approximately 12,000 species represented.

## The Bookstore

The Bookstore, located on campus between Davis and Carman Halls, provides the required faculty-chosen textbooks and related course materials. It also carries a large line of academic software, a comprehensive trade section of general interest books, and school supplies. The College community may also Lehman College apparel, diploma frames, gift items, bargain books on sale at up to seventy percent off list price, health and beauty items, snacks, candies, sundries, and beverages. Items in the Bookstore are also available for purchase online at www.lehman.edu/bookstore.

## Fine and Performing Arts Facilities

## Lehman Center for the Performing Arts

Lehman Center for the Performing Arts' 2,310-seat Concert Hall is the borough's premier performance space. Critics have called it "acoustically perfect." With a modern 2,400 -square foot stage and a hydraulic orchestra pit, the Center presents outstanding classical, popular, and folk/ethnic dance, music, and theatre companies from around the world. Special,
culturally diverse community celebrations enhance the Center's offerings. The Center has also served as the site of numerous public programs and debates of national interest. Lehman students are offered discounted tickets for most events, as well as opportunities to work as ushers and apprentice stagehands. Examples of artists who have recently performed at the Center include El Gran Combo, Virsky Ukrainian National Dance Company, Smokey Robinson, Jimmy Cliff, Trinity Irish Dance Company, Nickelodeon's Blues Clues Live, and the gospel musical "Your Arms Too Short to Box With God."

## Lehman Stages

Lehman Stages is a performance and rehearsal facility at Lehman College, comprised of the Lovinger Theatre, the Studio Theatre, the Student Experimental Theatre (or "SET"), and the Dance Lab @ Lehman.

Part of the Bronx for over two decades, the facilities that comprise Lehman Stages have served as an invaluable cultural resource for the Bronx and the larger New York City community. Lehman Stages is dedicated to the creation and presentation of performing arts programming of all disciplines, with a special focus on education and cultural diversity. Lehman Stages aspires to be an artistic touchstone for emerging artists of all backgrounds and a training facility for the College's theatre and dance program. The facilities also provide low-cost rehearsal, performance, and conference space for arts, civic, and government organizations throughout the metropolitan area.

## Recital Hall

The Music Building houses the 150 -seat Recital Hall, which is used by music students and music faculty members throughout the academic year. There are also individual practice rooms for music students, as well as larger rehearsal halls for groups such as the Community Band and Lehman College and Community Chorus. Many recitals are given at noontime in the Recital Hall and attended by the public during the lunch hour. The Lehman College Chamber Players, the Lehman College Jazz Ensemble, and the Lehman College Brass Ensemble are among the groups performing noon-time concerts.

## Lehman College Art Gallery

The Lehman College Art Gallery is located in the Fine Arts Building designed by renowned architect Marcel Breuer. The Gallery presents innovative contemporary art in two striking exhibition spaces. Education is an integral component of exhibition programming and provides the basis for the Gallery's outreach - from young students to senior citizens. New technologies offer a means of reaching audiences internationally as well as locally and provide creative new
venues for artists. The Gallery's website, featuring Bronx Public Art, highlights an extraordinary collection of public art from the WPA to contemporary projects.

## Student Life Facilities and Programs / Services

## Office of the Vice President for Student Affairs

The Office of the Vice President for Student Affairs (Shuster Hall, Room 206) is concerned with all aspects of student life and provides numerous services for Lehman graduate and undergraduate students, from new student orientation to arranging the College's annual commencement ceremony. The Office of the Vice President for Student Affairs is available to assist students with academic and personal issues, as well as to advise student organizations and extracurricular groups. Have a question, concern, or comment? Not sure where to go for answers? Send a member of the Student Affairs team an email or stop by the office in Shuster Hall room 204. If you send an e-mail, please be as specific as possible. You're welcome to submit your feedback anonymously by fax (718-960-8243) or by dropping off a note, but if you'd like a response please include your name and phone number or email address. We look forward to hearing from you.

## The Student Affairs Team:

Jose Magdaleno, Vice President for Student Affairs:
Joseph.Magdaleno@lehman.cuny.edu
John Holloway, Dean of Students:
John.Holloway@lehman.cuny.edu
Vincent Zucchetto, Executive Assistant to the Vice President:
Vincent.Zucchetto@lehman.cuny.edu
Janelle Hill, Student Life Specialist:
Janelle.Hill@lehman.cuny.edu
The Office of the Vice President for Student Affairs provides managerial oversight for departments that provide critical services to all students. These departments include: APEX/Athletics, International Student \& Scholar Services, Counseling Center, Career Services Center, Urban Male Leadership, Campus Life/ Student Activities, Health Center \& Wellness Education, Financial Aid, Child Care Center, Community Engagement, Disability Services, and Veterans Services. Student housing services, medical withdrawal appeals, emergency grants and academic integrity/judicial issues are coordinated by this office as well.
For information about important College/University policies and procedures go to http://www.lehman.edu/student-affairs/documents/student-handbook-part-II.pdf

## The APEX

The APEX is a $\$ 57$ million recreation and sports facility that provides 165,000 square feet of multidimensional,
multipurpose space. It houses the College's intercollegiate and intramural athletics program, as well as classrooms and dance studios for the academic program in dance theatre.

The chief attraction of the APEX - a 50-meter, eight-lane swimming pool - has provided a new level of opportunity for the sport of competitive swimming in the metropolitan area. It is used for both national and international athletic competitions, while also supporting Lehman's many varsity, recreation, intramural, and community outreach activities.

The APEX has two gymnasiums, one for intercollegiate athletics with a seating capacity of 1,000 , and the other for recreational and intramural use. Other key features of the building include: four racquetball courts, free weight room, cardiovascular fitness center, a training room, an equipment room with laundry facilities, saunas, locker rooms, dance and ballet studios, and an indoor running track.
The College also has five outdoor tennis courts and soccer, softball, and baseball fields. Alumni, College staff, and community members as well as Lehman students may use athletic facilities in accordance with College rules and regulations.

## Intercollegiate Athletics

Lehman College is a member of the National Collegiate Athletic Association Division III, the City University of New York Athletic Conference, the Metropolitan Collegiate Swimming Association, and the Eastern Collegiate Athletic Conference. Students are encouraged to join athletic teams, many of which participate in local league competition. Standards for participation and rules governing the sports are those of the National Collegiate Athletic Association and various local and district conferences. The eligibility requirements for Lehman College are as follows:

- Athletes must be full-time matriculated students, i.e., carrying twelve (12) credits.
- Athletes must have and maintain a Grade Point Average of 2.0 index.

Competition is held in the following varsity sports: basketball, cross-country, softball, baseball, swimming, tennis, soccer, indoor and outdoor track and field, and volleyball. In addition there is conference, regional, and national championship competition in all intercollegiate programs. City University championship tournaments are conducted in baseball, basketball, cheerleading, cross country, soccer, softball, swimming, tennis, indoor and outdoor track and field, and volleyball.

## Intramural Sports

The intramural sports program provides a wide variety of activities of a competitive and recreational nature in which students, staff, and faculty may participate. Organized
activities are scheduled throughout the year in men's, women's, and coeducational teams. These are conducted during free hours on Wednesdays from 3 to $5 \mathrm{p} . \mathrm{m}$. and on Fridays from noon to $1 \mathrm{p} . \mathrm{m}$. Supervised recreational facilities are made available as often as possible for informal use by the Lehman College community. The following intramural activities are available: basketball, soccer, softball, swimming, tennis, and volleyball. The Intramural-Recreation Office is located in Room 253 of the APEX.

## Recreation Opportunities

Supervised hours for recreation in the APEX pool, fitness center, auxiliary gym, aerobics room, and racquetball courts are provided as often as possible for informal use by faculty, staff, and students. The schedule for these facilities varies somewhat from semester to semester and may be obtained in Room 251, APEX. The APEX is open Mondays through Fridays during the academic year from 7 a.m. until 10 p.m. On Saturday, the building is open from 8 a.m. until 5 p.m., and on Sunday from 9 a.m. until 2 p.m. Students may use the APEX free of charge; for others, a yearly membership fee is required. Additional information is available by calling 718-960-1117.

## The Campus Life/Student Activities Office

The Office of Campus Life, located in the Student Life Building (718-960-8535), facilitates a myriad of student development programs that complements students' academic experience. Programs include the Herbert H. Lehman Center for Student Leadership Development, which offers leadership training modules, reflective dialogues, retreats, conferences, public speaking and communications training as well as off $\hat{A}$-campus trips to the White House, Pentagon and the United Nations.

The Office serves as a resource for all student clubs funded through the student activity fee. In association with Student Government Association (SGA) and its Programming Board, the office promotes thematic programs such as Black History Month, Women's History Month, and Latino Heritage Month. Additionally, the Campus Life staff is available to all students who might be interested in existing or establishing a new student organization.

The Student Life Building is a two-story facility which underwent a $\$ 2$ million dollar renovation two years ago. The improvements include the SGA Executive Office thirty-two student club offices, the campus radio station Lehman Underground Radio, and The Herbert H. Lehman Center for Student Leadership Lounge. Adjacent to the south baseball field, the building is open from $9 \mathrm{a} . \mathrm{m}$. until 9 p.m. Monday through Thursdays and from 9 a.m. until 5 p.m. on Fridays. Graduate and undergraduates students are welcome to use the game room, TV room, student lounge, or conference rooms. A copying/fax service is available to all members of the Lehman
community at the main entrance. Student club members are also free to use the computer resources for creating club posters and announcements. A wireless network and free laptop rental program are available to students with a valid Lehman ID.

## The Cafeteria

The Student Cafeteria's contract operator offers food and catering services to the Lehman College community. The Underground Lounge offers a wide variety of freshly prepared, and nutritious meal options from 7:30 a.m. to 8:30 p.m. Monday through Thursday, and from 7:30 a.m. to 3:30 p.m. on Friday and Saturday. Schedules vary when class is not in session. Current schedules may be obtained by calling 718-960-1175.

The main student cafeteria The Underground Lounge, in the lower level of the Music Building, has a seating capacity of 800. The Underground Lounge is a complete food court dining location on campus. Students can choose from a wide variety of freshly prepared meals from the following exciting culinary concepts.

## Asian Moon:

There are a variety of Asian cuisines featuring Thai, Japanese, and Chinese inspired dishes that include pad Thai, sesame chicken, steamed dumplings, beef teriyaki and more. There is also a wide variety of freshly prepared sushi and Japanese dishes. You can choose from one of our delicious sushi rolls or ask the sushi chefs to prepare your favorite roll just for you.

## Tossed Salads:

Start with small or large mixed green salads and choose from any of our delicious gourmet ingredients and salad dressings to create your own signature tossed salad. The fat free dressings and fresh toppings make the salads a healthy option. Tossed salads are also available in the Carman Hall Café.

## The Grill:

Start your day with fresh eggs prepared to order or a stack of delicious pancakes with butter. Join us again for lunch and grab a gourmet burger, grilled chicken sandwich, or Philly style cheese steak. Every grill item comes available as a small or large combo meal with fries and a fountain beverage making your lunch an extra special value.

## Chefs Features:

Executive Chef Hector Morales prepares a delicious selection of hot entrée choices and delicious side dishes every day. Pair your favorite entrée with a choice of two side dishes for a complete meal.

## Signature Sandwiches:

The NY style deli will create your favorite sandwich topped with a wide variety of accompaniments and dressings or choose from one of our signature sandwiches. In a hurry to get
to class on time? Grab a freshly made sandwich from our grab-n-go case.

## Mexi-Cali Fresh Baja Grille:

The Mexi Cali Grille, located in the Underground Lounge, features a variety of made-to-order options like steak burritos and chicken quesadillas and fish tacos. Everything is prepared to order and includes only the freshest ingredients.

## City Slices:

There is a wide variety of delicious Pizzas made by Lehman College Pizza Chef Valentino. A favorite is Chicken Bacon Ranch, but you can choose from Authentic NY Cheese, Sicilian, Marinara, Balsamic Chicken, or Meatball. Or, grab a Stromboli and some garlic knots.
Located in the first floor of the Music Building, The Harmony Cafe offers a variety of Starbucks coffees, espresso drinks, and frapuccinos, hot and cold teas, pastries, desserts and light lunch options such as Hale and Hearty soups, sushi, Paninis, Kosher sandwiches, and salads to satisfy your afternoon cravings.

The Carman Café offers a wide variety of Starbucks coffees, espresso drinks, and frapuccinos, hot and cold teas, pastries, desserts and light lunch options such as Paninis, Kosher sandwiches, Hale and Hearty soups, and sushi are available. You can also order a prepared to order tossed salad from the tossed salad bar or grab a personal pizza. The hours of operation for the cafe are the same as those of the student cafeteria. For the convenience of students, a varied selection of vending machines is also available both in the Carman Café and the Student Cafeteria, The Underground Lounge.

## The Career Services Center

The Career Services Center (CSC) (Room 254, Shuster Hall, 718-960-8366) assists Lehman students and alumni with all phases of their career development to help them transition from college to career. We strive to provide the highest standards of comprehensive services and practices so that students and alumni may successfully meet the challenges of a globally competitive job market.

Through its online management system and a state-of-the-art computer lab, students have access to full-time, part-time and internship positions in private, public, and non-profit organizations. The Career Services Center also provides students with individualized career counseling, interactive career developmental workshops, internship opportunities, employment resources and on-campus recruitment with employers.

## The Financial Aid Office

Located in Room 136 of Shuster Hall, the Office of Financial Aid assists students with all aspects of financing their education, including planning and meeting the expenses
associated with attending the College. Information is available on financial assistance programs and on how to maintain eligibility for Federal, State, and City award programs. Financial Aid professionals will work closely with students and their families to put the cost of a Lehman education within reach.

The Office also provides students with expanding services through a computer lab, located in Shuster Hall, Room 131. Students may use the lab to access and complete various online financial aidr-related applications. For more detailed information, visit www.lehman.cuny.edu/financialaid.

## The Speech and Hearing Center

A unique and highly regarded graduate teaching facility, the Speech and Hearing Center at Lehman College provides state of the art diagnostic and therapeutic services to individuals in the NYC Metropolitan area and to members of the Lehman community who have speech, language, hearing, feeding, and swallowing deficits. Services are delivered by graduatestudent clinicians under the close supervision of Clinical Supervisors, who are speech-language pathologists and audiologists certified by ASHA (the American Speech-Language-Hearing Association) and licensed by New York State. The Center also serves as a laboratory for undergraduate and graduate students in Speech-Language and Hearing Sciences and faculty doing applied clinical research.

Service provision supports evidence-based practices in all diagnostic categories and treatment areas including language development, reading and writing, central auditory processing. articulation, voice, fluency, social language development, and feeding/swallowing for children and adults throughout the lifespan. Treatment is provided in individual and group settings. Parent and caregiver support is an integral component of our program. Bilingual services are also offered as well as accent modification. Devices for assisting the hearing impaired are available for evaluative purposes.

Conveniently located in the Speech and Theatre Building, Room B-50, the Lehman College Speech and Hearing Center is opened during the academic year, Monday through Friday between the hours of 10 am and 9 pm . Parking is available on campus. Center fees are considerably less than those charged by private practitioners.

Please contact us to inquire about services at our center at (718)960-8138.

## The Student Health Center

The Student Health Center is located in the Old Gym Building, Room B008. The Center offers a wide range of services, including primary and acute care and treatment, urgent care, men and women's health services, required and elective immunizations, and internship and pre-employment physicals. Basic laboratory services and pharmaceuticals are also available. Preventive health education is a key focus.
The Student Health Center is supported by the Student Activity Fee and, therefore, most services are free or are offered at a significantly reduced cost. Free services include: HIV testing, CPR trainings, nutrition counseling, gyn examinations, health insurance assistance and food stamp assistance.
Office hours during the academic year are 9 a.m. -5 p.m. Monday through Friday and Tuesday until 6:30pm. Students with valid IDs may use the services of the Center on an appointment basis. Sick walk-in patients are accommodated. Additional information can be found on
www.lehman.edu/studenthealth or call 718-960-8900.

## The Counseling Center

The Lehman College Counseling Center is located at the Old Gym Building, Room 114. The Counseling Center offers free and confidential therapy Trained Psychological Counselors are available to help students discuss difficulties that may be interfering in their day to day lives and keeping them from attaining their academic goals. Students' individual circumstances and unique strengths are core elements in the therapy sessions which can range from 30 minutes to 45 minutes.

Students are encouraged to call 718-960-9761 to schedule appointments. In addition, walk-in counseling sessions are available with the assigned walk-in Counselor. Students are asked to complete forms, in paper or on a computer. Regardless, the student's information is confidential. Please make an appointment today. We are here to support your academic and personal development.

## The Child Care Center

The center is licensed by the New York City Department of Health, Bureau of Day Care, and accredited for over ten years by the National Association for the Education of Young Children. Childcare services during the day are provided for two-to-five-year-olds. Evening programs for children aged five to nine are available to parents attending evening classes at Lehman. Students enrolled in Saturday classes may enroll their four- to nine-year-old children in the Center's Saturday program. Enrollment is based on available spaces and dated applications from a waiting list. Students interested in
additional information about the Center, including current rates for full-time and part-time childcare, as well as for the after-school and weekend programs, may call 718-960-8746 for more information.

## The Office of Community Engagement and New Student Programs

The Office of Community Engagement and New Student Programs aims to educate members of the Lehman campus community on the importance of responsible citizenship through new student orientation, community development programs, practical application of knowledge, and an awareness of global issues impacting local communities. There are five major components of the Office of Community Engagement and New Student Programs: Lehman L.I.F.E., Community Service-Learning, Service Program Calendar, Pay it Forward Program, CUNY Service Corps and New Student Orientation. Our programs engage students, faculty and staff in education and community service, providing opportunities for personal and professional growth, networking, and community engagement. To learn more about the opportunities available, please visit the Old Gym, Room 302 or call 347-577-4020.

## Student Disability Services

The Office of Student Disability Services provides a wide range of accommodations and services to students with documented disabilities including those with temporary medical issues. Available services include, but are not limited to: advisement, registration assistance, assistive technology training, individual test administration, library assistance, equipment loan, agency referral, faculty liaison, sign language interpreters, note-takers, scribes, readers and proctors. The Office has an Assistive Technology Lab in the Library and provides students with career development programs and other workshops. We welcome graduate students with disabilities and are committed to providing an equitable learning environment by reducing barriers to physical, technical, and programmatic access at Lehman. Our office is located in Shuster Hall, Room 238 and we can be reached at 718-960-8441.

## Urban Male Leadership

The Urban Male Leadership Program (UMLP) is designed to facilitate the successful transition of new students to Lehman College. The program also provides support to continuing students by strengthening academic skills, personal development, and character enrichment. We are committed to facilitating student success both inside and outside of the classroom. The primary program focus is to increase the retention and graduation rates of all students while fostering a meaningful college experience with specific emphasis on
historically underrepresented Black and Latino males. Our office is located in the Old Gymnasium Building, Suite 302 and we can be reached at 718-960-8801.

## Veterans and Military Affairs

The Office of Veterans and Military Affairs is here to help veterans, service members, and their families assimilate into the Lehman College community. In addition, the Office assists eligible individuals in applying for benefits and services for which they are entitled to for serving in the Armed Forces. Lehman recognizes the contribution veterans and service members make as citizens and students. We are proud of their demonstrated level of diversity and academic excellence. Stop by the Office of Veterans and Military Affairs at Shuster Hall, Room \#201B to learn how to maximize your benefits in achieving your goals. You can also reach the Coordinator of Veterans and Military Affairs at (718) 960-7188.

## Wellness Education and Education Program

The Wellness Education and Promotion Program provides health awareness and education to the college community through outreach, student engagement, training and research. Our program model systematically addresses college health through the development of relevant programming at the individual, group and community level to promote health and support student success. The program provides a comprehensive campus outreach program that includes workshops, individual health counseling, support groups and a health information library for students. Our services are available to all enrolled undergraduate, graduate and professional students. The program provides internship opportunities for students in the areas of health education, communication and promotion. The Wellness Education and Health Promotion Program is located in the Old Gym, room 302. For additional information please call 718-960-2415.

## International Student and Scholar Office

The International Student \& Scholar Office assists students and scholars in obtaining and maintaining the F-1 International Student, and the J-1 Exchange Visitor visa type and immigration status for the purpose of pursuing a degree or certificate program; to teach; conduct research or engage in educational and cultural initiatives. The Certificate of Eligibility Forms (I-20 for F-1 students; DS 2019 for exchange students and scholars) are provided upon completion of all admission requirements, and verification of F or J program eligibility. ISSO Contact Information: Shuster Hall 210; Lehman web site:
$\mathrm{http}: / / \mathrm{www} . l$ lehman.edu/students/international-
students/index.php, email: isso.shuster@lehman.cuny.edu; telephone 718-960-7274.

## Academic Programs and Courses

## Curricula and Course Offerings

Lehman College courses are identified by a three-letter abbreviation (known as an "Alpha Code"), followed by a three-digit number. The letters designate the subject area. Courses in the Biological Sciences may have decimals after the three-digit number. Doctoral courses in the Biological Sciences carry the four-letter designation "BIO U."

## Cross-Listed Courses

A cross-listed course is one that is administered and offered jointly by two (or more) departments. There is only one syllabus for the course.

An example of how these courses are listed by the two (or more) departments is the following:

- HEA 625 (FCS 674): Seminar in Human Sexuality
- FCS 674 (HEA 625): Seminar in Human Sexuality

The department in which the course is to be credited for each particular student is decided at the time of registration for the course and is so indicated on the student's record. This designation may not be changed subsequently.

## Course Levels

- 500 level: Courses on this level are graduate courses for students with undergraduate majors in a different discipline.
- 600, 700, and 800 levels: Courses on these three levels are graduate courses for students who have completed at least 18 credits of undergraduate work in the area of graduate specialization.
- The levels are distinguished as follows:
- 600 level: Graduate courses open to qualified undergraduates.
- 700 level: Graduate courses intended primarily for master's degree candidates.
- 800 level: Courses intended primarily for doctoral candidates. The letter "U" preceding an $800-\mathrm{level}$ course indicates that that course has been approved as part of City University's doctoral curriculum.
NOTE: Selective courses listed in each department or program may not be given in academic years 2013-2014 and 2014-2015. For more information, contact the department or check the Schedule of Classes distributed prior to each semester.

Index of Course Abbreviations (Alpha Codes)

| Course <br> Abbreviation | Program |
| :---: | :---: |
| ACC | Accounting |
| ANT | Anthropology |
| ART | Art |
| ARH | Art History |
| AST | Astronomy |
| BIO | Biological Sciences |
| CHE | Chemistry |
| CLA | Classics |
| CMP | Computer Science |
| COM | Multimedia Studies |
| DFN | Nutrition |
| EBS | Bilingual Special Education |
| EDC | Early Childhood Education |
| EDE | Elementary Education |
| EDG | Guidance \& Counseling |
| EDI | Educational Media |
| EDL | Educational Leadership |
| EDR | Reading (Teacher Education) |
| EDS | Special Education |
| ENG | English |
| ESC | Middle \& High School Education |
| ESS | Special Subjects (Teacher Education) |
| EXS | Exercise Science |
| FCS | Family \& Consumer Studies |
| GEH | Human Geography |
| GEO | Geology |
| GEP | Physical Geography |
| HEA | Health Education |
| HIE | History of Modern European |
| HIS | History |
| HIW | Asian, African, and Latin American History |
| HSD | Health Sciences Core Courses |
| IRI | Irish |
| ITA | Italian |
| MAT | Mathematics |
| MLS | Liberal Studies |
| MSB | MS Business |


| MSH | Music History |
| :--- | :--- |
| MSP | Music Performance |
| MST | Music Theory |
| NUR | Nursing |
| PHY | Physics |
| POL | Political Science |
| PRS | Puerto Rican Studies |
| PSY | Psychology |
| REC | Recreation |
| RLG | Romance Language |
| SOC | Sociology |
| SWK | Social Work |
| SPA | Spanish |
| SPE | Speech |
| THE | Theatre |

## Anthropology

Department Chair (Interim): Ryan Raaum (Davis Hall, Room 427)

Deputy Chair: Christa Salamandra (Davis Hall, Room 429)
Department Faculty and Staff: Emeritus: Richard Blot; Professors: Eric Delson, Christa Salamandra, Victoria Sanford; Associate Professors: William E.H. HarcourtSmith, Cameron L. McNeil, Ryan Raaum, Stephanie Rupp; Assistant Professor: Victoria M. Dominguez; Distinguished Lecturer: Rima Brusi; Chief College Laboratory Technician: Salah Noueihed
The Department of Anthropology offers courses of interest to people with bachelor's degrees, pursuing a variety of careers, including teaching, the health professions, museum work, and business.

## Art

Acting Chair: Melissa Brown (Fine Arts, Room 014)
Deputy Chair: Sharon Jordan
Graduate Adviser: Dannielle Tegeder
Department Faculty and Staff: Emeritus: David Gillison; Professors: Herbert Broderick; Associate Professors: Melissa Brown, Gina Dominique Hersey, Sharon Jordan, Sean McCarthy, Charles Seplowin, Dannielle Tegeder, Terry Towery; Assistant Professors: Jonathan Ehrenberg, David Schwittek; Lecturers: Paul Carrellas, Janet Skolnik; Chief College Laboratory Technician: John Belardo; College Lab Technician: Nicole Barreras

The Department of Art offers three graduate degree programs: Master of Arts in Art, Master of Fine Arts in Art, and Master of Arts in Art Education (N-12).

## Art, M.A. Program

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to pursue graduate study successfully, that is, by having attained a minimum undergraduate grade average of $B$ in Art courses and a minimum grade average of $B$ - in the undergraduate record as a whole.
- Have earned a minimum of 33 undergraduate credits in art. This total must include one 3-credit survey course in art history and 6 additional credits in Art History.
- Complete an interview with the Department and submit a portfolio and/or photographs or slides of recent student work.
- Submit two letters of recommendation from college instructors.
- If conditionally admitted, satisfy the conditions within one year.
- Personal Interview. An appointment for a personal interview with the graduate coordinator and adviser can be made through the Art Department Office after the application for admission has been filed and approved.
- Applicants must then present examples of their work either originals, photographs, or color transparencies - for final approval.


## Degree Requirements

Students are required to select an area of specialization from either painting, graphics, sculpture, ceramics, or digital media. They must earn 12 credits in their area of specialization, 6 credits in elective courses, and 9 credits in Art History.

## In addition:

ART 746
Masters Project
3
ART 746: Must be taken in the student's area of specialization for 3 credits during the final semester in the program.

## The electives will be selected (in consultation with the Graduate Adviser) from among:

ART 702 Advanced Problems in Design I 3

ART 710 Advanced Drawing 3
ART 738 Advanced Photography I 3
ART 740 Advanced Photography II 3
ART 742 Independent Research 3
Additional Electives: And from courses in painting, graphics, and sculpture (in those areas outside the student's own specialization).

## Students are required to elect the following areas as part of the first $\mathbf{1 8}$ credits toward the M.A. degree:

Art History
Electives
Area of Specialization
Art History: Any of the offerings.
After a student has completed the first 18 credits in the program, the Art Department will conduct a review of the work and determine the student's ability to continue in the M.A. program.

## Art, M.F.A. Program

The Department of Art offers a Master of Fine Arts (M.F.A.) in Art degree is offered in ceramics, digital media, printmaking, graphics, painting, and sculpture. This program is intended for students who have demonstrated ability for independent work of high quality in one of the four fields.

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to pursue graduate study successfully, that is, have attained a minimum undergraduate grade average of B in Art courses and a minimum grade average of $B$ - in the undergraduate record as a whole.
- Have earned a minimum of 33 undergraduate credits in Art. This total must include one 3-credit survey course in Art History and 6 additional credits in Art History.
- Complete an interview with the Department and submit a portfolio and/or photographs or slides of recent work.
- Submit two letters of recommendation from college instructors.
- If conditionally admitted, satisfy the conditions within one year.
- Personal Interview. An appointment for a personal interview with the graduate coordinator and adviser can be arranged through the Art Department Office after the application for admission has been filed and approved.
- Applicants will then need to present examples of their work - either originals, photographs, or color transparencies - for final approval.
- Applicants will be reviewed by the department's M.F.A. Committee.
- Upon acceptance, the student and his/her work will be reviewed each semester by the M.F.A. Committee, which is authorized to approve or refuse continued study in the program or to place a student on probation. Each case of probation will be subsequently reviewed at mid-semester.


## Degree Requirements

Students must select an area of specialization from among ceramics, digital media, printmaking, painting, and sculpture, and should use the following breakdown of courses to complete the 48 Credit M.F.A. All students must take ART 744 (First-Year Graduate Seminar) for 3 credits. Students must also earn 12 credits in their area of specialization, 9 credits in Art History, and 12 credits in electives. (Electives are in areas outside the student's own specialization and will be selected in consultation with the Graduate Advisor from courses in digital media, printmaking, painting, and sculpture.) Prior to beginning their Master's thesis, students must complete 3 credits of independent studio work in ART 742 (Independent Research). In the final two semesters of the program, all students will take the 9 credits of ART 748 (Master's Thesis I) and ART 750 (Master's Thesis II) in their area of specialization.

## 48 Credit M.F.A.:

ART $744 \quad$ First-Year Graduate Seminar 3
Art courses 12
Art History courses 9
Elective courses in Art 12
ART 742 Independent Research 3
ART 748 Master's Thesis I 3
ART $750 \quad$ Master's Thesis II 6
Art courses: In area of specialization.
ART 742: Prior to thesis year.
Once a student has completed 21 credits of coursework, the Department will conduct a review of the work and determine the student's eligibility to continue in the M.F.A. program.

## Art Education (Pre-K-12), M.A. Program

This program is designed for students who seek a Master's degree leading to initial New York State certification in teaching Art, Pre-K-12. (Previously certified students interested in professional certification should seek the M.A. in Studio Art.) Candidates have two advisers: the Graduate Adviser in the Art Department and the Art Education adviser in the School of Education. Candidates are required to enroll in the Education sequence of courses immediately upon entry into the program.

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the ability to successfully pursue graduate study by having attained a minimum grade average of $B$ in the undergraduate record as a whole and an average of B in courses most relevant to the graduate discipline.
- Have earned at least 33 undergraduate credits in Art. This total must include one 3 -credit survey course in Art History and 6 additional credits in Art History.
- Each applicant must submit a graduate-level portfolio of recent work consisting of 15-20 digital images in JPEG format that is accompanied by an image script, which details the Title, Size, Medium and Date of each image. The portfolio should demonstrate an area of focus.
- Submit two letters of recommendation from college instructors.
- If conditionally admitted, students must make up not more than 12 credits of specified undergraduate coursework, starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores on the appropriate New York State teacher certification examinations.


## Degree Requirements

Students are required to finish 45 credits ( 18 credits in Art / Art History and 27 credits Education / Art Education) as follows:

| Required Studio Art and Art History Courses from the |  |  |
| :--- | :--- | :--- |
| Art Department (18): |  |  |
| ART | Three ART courses in Studio | 9 |
|  | Art |  |
| ART 746 | Masters Project | 3 |
| ARH | Two ARH courses in Art | 6 |
|  | History |  |

Three ART courses in Studio Art: At the 700-level chosen in conjunction with the Graduate Art Adviser.

Two ARH courses in Art History: Chosen in conjunction with the Graduate Art Adviser.

Required Education Courses from the Department of Middle and High School Education and the Department of Early Childhood and Childhood Education (27):

ESC 501

ESC 502

ESC 506

ESC 529/EDR
529/ESC 529

EDE 716

ESC 714

ESC 735

Psychological Foundations of Education
Historical Foundations of Education: A Multicultural Perspective
Special Needs Education in TESOL and Secondary Settings Language and Literacies
Acquisition in Secondary Education
Learning and Teaching Art in Childhood Settings: Grades 1 to 6
Teaching Art in Middle and High School
Curriculum, Research and

ESC 596

ESC 612

Current Issues in Art Education
Student Teaching in the Middle and High School Grades Seminar in Secondary Student 3 Teaching

ESC 506: Or Equivalent.
EDE 716: Prereqs/coreqs waived.

## Biological Sciences

Department Chair: Haiping Cheng (Science Hall, Room 3408)
Graduate Adviser: Joseph W. Rachlin (Davis Hall, Room 233)

Department Faculty and Staff: Professors: Haiping Cheng, Edward J. Kennelly, Dwight T. Kincaid, Martin Muntzel, Joseph W. Rachlin, Eleanore T. Wurtzel, Zhi-Liang Zheng; Associate Professors: Maryam Bamshad-Alavi, Stephen Redenti, Renuka Sankaran, Moira Sauane; Assistant Professors: Gabriel O. Aisemberg, Julio Gallego-Delgado; Lecturers: Ayanna Alexander-Street; Judith Fitzgerald, Jack Henning, Rena Quinlan; Senior College Laboratory Technicians: Christine Delevan, James Lee, Christina West

- Master of Arts in Biology.
- Master of Science in Biology.
- Master of Arts for Secondary School Teachers of Biology and General Science.
- The City University of New York's Graduate School and University Center offers courses and research training leading to the Ph.D. degree in biology. Students may specialize in zoology or in the plant sciences. The specializations in plant sciences for the University are offered primarily at Lehman College, in affiliation with the New York Botanical Garden. Students in this program may obtain the M.A. as a degree "en route" to the Ph.D. Requirements for admission and further information may be found in the Bulletin of the Graduate School of The City University of New York


## Biology M.A. Program

## Admission Requirements

- A bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to pursue graduate study successfully - that is, have attained a minimum undergraduate grade average of B in the field selected for the graduate major and a minimum grade average of B - in the undergraduate record as a whole.
- Have completed a major in biology, chemistry, physics, or an allied field.
- With Undergraduate Specialization in Biology: Candidates whose undergraduate major was in biology must have completed: (1) one year of organic chemistry, with laboratory; (2) one year of college physics; and (3) either one year of calculus or one semester of calculus and a semester of statistics.
- With Undergraduate Specialization in Chemistry, Physics, or Allied Field: Candidates whose undergraduate major was in either chemistry, physics, or an allied field must have completed: (1) the equivalent of an undergraduate minor in biology; (2) one year of organic chemistry, with laboratory; (3) one year of college physics; and (4) either one year of calculus or one semester of calculus and a semester of statistics.
- In addition, students must submit up to three letters of recommendation and, if conditionally admitted, satisfy the conditions within one year.


## Degree Requirements

- All students (matriculated or nonmatriculated) should consult with the Departmental Graduate Adviser regarding their program.
- A student must complete 34 credits of coursework including 4 credits of tutorial (BIO 792.2). This tutorial is performed under the supervision of a member of the graduate faculty in Biological Sciences. It is intended to involve the student in the performance of a carefully supervised project. The project may involve research in the laboratory, a library review of relevant topics, or a combination of the two. The results of this project will be written and submitted to the Department of Biological Sciences in partial fulfillment of the requirements of the master's degree. This document will become part of the departmental library.


## Academic Probation and Continuation

- All graduate students whose GPA falls between 2.7 and 3.0 will be placed on academic probation. See the College's graduate policies and procedures regarding probation and continuation.
- Graduate students in Biological Sciences degree programs whose GPA falls below 2.7 will not be eligible for probation and may only continue in their program upon successful appeal to the Graduate Studies Committee.
- Students who received a failing grade in a course and have a cumulative GPA between 2.7 and 3.0 will only be granted one semester to make sufficient progress towards degree completion and bring the GPA back up to 3.0 or above. Students may not continue in any course for which the failed course is a prerequisite. If the GPA is not raised to a 3.0 or above by the end of the next registered semester the student will be asked to discontinue their program of study.
- Students, who receive two failing grades in any of the courses satisfying the degree curriculum, will not be eligible for probation and will be asked to discontinue their program of study.


## Biology M.S. Program

## Admission Requirements

- A bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to pursue graduate study successfully - that is, have attained a minimum undergraduate grade average of $B$ in the field selected for the graduate major and a minimum grade average of $B$ - in the undergraduate record as a whole.
- Have completed a major in biology, chemistry, physics, or an allied field.
- With Undergraduate Specialization in Biology: Candidates whose undergraduate major was in biology must have completed: (1) one year of organic chemistry, with laboratory; (2) one year of college physics; and (3) either one year of calculus or one semester of calculus and a semester of statistics.
- With Undergraduate Specialization in Chemistry, Physics, or Allied Field: Candidates whose undergraduate major was in either chemistry, physics, or an allied field must have completed: (1) the equivalent of an undergraduate minor in biology; (2) one year of organic chemistry, with laboratory; (3) one year of college physics; and (4) either one year of calculus or one semester of calculus and a semester of statistics.
- In addition, students must submit up to three letters of recommendation and, if conditionally admitted, satisfy the conditions within one year.


## Degree Requirements

- All students (matriculated or nonmatriculated) should consult with the Departmental Graduate Adviser regarding their programs.
- A student must complete 30 credits of coursework and complete an independent laboratory research project. A student may elect to substitute 1 to 6 credits in original laboratory research (BIO 799.1, 799.2, and 799.3) for 1 to 6 credits of coursework. When a student is ready to select a research problem, a research advisory committee of faculty members will be established in consultation with his or her thesis adviser* to guide the investigation. A thesis based on this research must be defended satisfactorily in an oral presentation prior to its submission in partial fulfillment of the requirements for the degree of Master of Science. Approved copies of the thesis must be deposited in the Lehman College Library and the Department of Biology.
- *Students who choose a thesis adviser at the New York Botanical Garden or at another institution must have an "inhouse" adviser. This individual must be a full-time faculty member of the Department of Biological Sciences at Lehman College and a member of the graduate faculty in biological sciences.


## Academic Probation and Continuation

- All graduate students whose GPA falls between 2.7 and 3.0 will be placed on academic probation. See the College's graduate policies and procedures regarding probation and continuation.
- Graduate students in Biological Sciences degree programs whose GPA falls below 2.7 will not be eligible for probation and may only continue in their program upon successful appeal to the Graduate Studies Committee.
- Students who received a failing grade in a course and have a cumulative GPA between 2.7 and 3.0 will only be granted one semester to make sufficient progress towards degree completion and bring the GPA back up to 3.0 or above. Students may not continue in any course for which the failed course is a prerequisite. If the GPA is not raised to a 3.0 or above by the end of the next registered semester the student will be asked to discontinue their program of study.
- Students, who receive two failing grades in any of the courses satisfying the degree curriculum, will not be eligible for probation and will be asked to discontinue their program of study.


## Secondary School Teachers of Biology and General Science Program

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the ability to pursue graduate study successfully. (Above-average academic achievement in general and in the teaching specialization is required.)
- Students in the program for Secondary School Teachers of Biology and General Science must have completed a major in the life sciences. The preparation must include at least 24 credit hours in the biological sciences (appropriately distributed), including an introduction to genetics. Additional required preparation on the college level consists of one year each of chemistry, physics, and mathematics. Advisable college-level preparation includes one year of earth sciences, one course in probability and statistics, and one course in organic chemistry. The candidate must also have completed 12 credits in secondary education courses and one semester of student teaching (or its equivalent).
- If conditionally admitted, students must make up not more than 12 credits of specified undergraduate coursework, starting in the first semester and finishing in no more than three consecutive semesters.
- Up to three letters of recommendation.


## Degree Requirements

## Students in the graduate curriculum will be required to complete the following minimum work:

Four courses in the biological sciences
CHE One course in chemistry
PHY One course in physics
Courses totaling 9 credits in secondary education, possibly to be chosen from:

| ESC 700/EDE | Psychology in Education, | 3 |
| :--- | :--- | ---: |
| 700/ESC 700 | Group Dynamics <br> ESC 701 | Advanced Educational <br> Psychology |
| ESC 702/EDE <br> 702/ESC 702 | Foundations of Education | 3 |
| ESC 703/EDE | School and Community | 3 |
| 703/ESC 703 | And/Or |  |
| ESC 772 | Evaluation and Assessment of <br> Student Learning | 3 |

- Students who have not completed one year of undergraduate earth sciences will take either geology, astronomy, or both.
- Additional courses are listed under the Departments of Chemistry, Earth, Environmental, and Geological Sciences, and Physics and Astronomy. A minimum total of 30 credits must be completed to earn the degree.


## Five-Year Combined B.S. /M.S. Dual Biology Degree

Effective: Fall 2019. Students whose major declaration for this program is effective beginning in the Fall of 2019 or thereafter must follow these requirements. Students whose declarations were for previous semesters follow the requirements that were in effect at the time of declaration. See link below for the most recent requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.
The Five-Year Biology B.S./M.S. degree offers qualified students the opportunity to earn both a Bachelor of Science and a Master of Science degree in Biology, which may be completed in as little as five years.
(Years 1-4) 120-credit B.S. in Biological Sciences. Winter and Summer Sessions must be used. BIO 489 must be taken twice and BIO 490 should be taken in the senior year.
(Years 1-2) Students must take the biology, math, chemistry, and physics prerequisites.
(Year 3) Research advisor chosen in Spring term.
(Year 4) Three M.S. courses taken for credit in both degrees ( 12 credits total). Must take BIO 489 in the Fall and BIO 489 and BIO 490 in the Spring. Graduation in June with Honors, having completed a research project under faculty sponsor.
(Year 5) Enrolled in M.S. program in thesis track (30 course credits, 12 of which are satisfied in Year 4). BIO 7991, and 7992 with possibility of BIO 7993. Defense of thesis and graduation by September 1.
30-32 M.S. Credits to be distributed as follows:
Students must take three M.S. courses in Year 4 (12 credits).
For example: BIO 634: Cell Biology and Electron Microscopy (4 credits).

Students must take three to four M.S. courses in Year 5 (12-14 credits).

For example: three thesis research courses ( 6 credits).
Note 1: This program will allow students to finish 1-2 years earlier than they would if they did a separate B.S. followed by a M.S. Additionally, this program provides students with extensive research experience, which will make them more competitive for jobs, doctoral programs and medical programs.
Note 2: To be eligible for the fifth-year program, all students must demonstrate an interest in, achievement in, or affinity for biology. This will be determined by having a minimum of 48 semester hours of mathematics and sciences study, including MAT 175 with a GPA of 3.0. Candidates must apply to the program no later than the first semester of their junior year and may apply as early as the second semester of their sophomore year.
The accelerated pace of this program is made possible by offering qualified students the opportunity to take masters level courses during their final year of undergraduate work. Students qualify by demonstrated attainment of a GPA of 3.0 in mathematics and science coursework as well as a GPA of 3.25 in the major through the first three years of study, and by completing all of the necessary prerequisites for those courses, which will ensure that they are prepared for graduate-level work.

Biology, B.A.-M.S. Dual Degree Prior to Fall 2019

## Chemistry

Department Chair: Andrei Jitianu (Davis Hall, Room 302)
Graduate Advisor: Naphtali O'Connor (Davis Hall, Room 326)

Chemistry faculty share advising responsibility. See the Chemistry Department advising schedule on the website.

Department Faculty and Staff: Professors: Iraj Ganjian, Andrei Jitianu, Marc S. Lazarus, Gustavo Lopez, Pamela Mills; Associate Professors: Thomas Kurtzman, Naphtali O'Connor; Assistant Professors: Benjamin Burton-Pye, Columba De La Parra, Melissa Deri, Prabodhika Mallikaratchy, Donna McGregor; Clinical Professor: Sonjae Wallace; Chief College Laboratory Technician: Sharif Elhakem; Senior College Lab Technicians: Sarswati Amarante; Bibi N. Gafur, Habib Girgis

The Department of Chemistry participates in the Biochemistry, Biology, and Chemistry doctoral programs of the Graduate School and University Center of The City University of New York. A description of these programs, including admission requirements, may be found in the Bulletin of The Graduate School of The City University of New York. Non-laboratory courses are usually given at the Graduate Center. Research leading toward the doctoral degree may be pursued at either Lehman College or any of the other senior colleges of the City University.

## Computer Science

Chair: Brian Murphy (Gillet Hall, Room 211).
Department Faculty: Distinguished Professor: Victor Pan; Associate Professors: Gwang Jung, Brian Murphy; Assistant Professors: Itai Feigenbaum, Matthew Johnson, Mingxian Zhong, Liang Zhou; Lecturers: Sameh Fakhouri, Steven Fulakeza, Eva-Maria Sofianos; Math and Computer Science Learning Center Coordinator: Loric Madramootoo; IT Academic Technology Coordinator: Marvin Florin; Academic Advisor: Tanja Haxhoviq

## Computer Science M.S. Program

The Computer Science program is offered for (a) recent graduates who wish to continue their studies while beginning their professional careers; (b) individuals presently employed in computer-related fields who wish to qualify for advanced career opportunities or training; and (c) individuals who seek a career change.

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to successfully pursue graduate study by having attained a minimum undergraduate grade average of $B$ in the field selected for the graduate major and a minimum grade average of $B$ - in the undergraduate record as a whole.
- Have taken the following courses: two semesters of calculus, one semester of linear algebra, two semesters of
programming in high-level languages, one semester of programming in assembly language, and one semester in data structures. Admission may be granted with the provision that undergraduate courses will be taken to satisfy these course requirements.
- Two letters of recommendation.
- If conditionally admitted, satisfy the conditions within one year.


## Degree Requirements

## Students must complete the following requirements for the M.S. Program in Computer Science:

A program of 36 credits (nine courses), chosen with permission of the Graduate Adviser. The following courses are required of all students:

| CMP 761 | Analysis of Algorithms | 4 |
| :--- | :--- | :--- |
| CMP 692 | Programming Languages | 4 |
| CMP 697 | Operating Systems | 4 |

The remaining six courses must be chosen from among all CMP courses numbered 683 and above.

A master's thesis or a written comprehensive examination. The thesis option is subject to approval of the Graduate Adviser.

## Counseling, Leadership, Literacy, and Special Education

Chair: Janet R. DeSimone (Carman Hall, Room B20)
Coordinators:
Sheila Blachman, Childhood Education, Dual Certification and Bilingual (Carman Hall, Room B20)
Stuart Chen-Hayes, Counselor Education (Carman Hall, Room B01G)
Janet R. DeSimone, Organizational Leadership (Carman Hall, Room B20)
Barbara Gottlieb, Childhood \& Adolescent Special Education (Carman Hall, Room B01E)
Danielle Magaldi, Early Childhood Special Education (Carman Hall, Room B01F)
Limor Pinhasi-Vittorio, Literacy Studies (Carman Hall, B17A)
Rosa Rivera-McCutchen, Educational Leadership (Carman Hall, B53)

Department Faculty: Professors: Stuart Chen-Hayes, Harriet Fayne, Barbara Gottlieb, Gaoyin Qian; Associate Professors: Janet R. DeSimone, Faith Deveaux, Danielle Magaldi, Limor Pinhasi-Vittorio, Rosa Rivera-McCutchen, Laura Roberts; Assistant Professors: Alyse Anekstein, Jennifer Van Allen; Lecturers: Sheila Blachman, Faith Muturia

The Department of Counseling, Leadership, Literacy, and Special Education offers the following programs:

- Master of Science in Education, Counselor Education
- Master of Science in Education, Educational Leadership (School Building Leader)
- Advanced Certificate, Educational Leadership (School District Leader)
- Master of Science in Organizational Leadership, NonCertification (not related to K-12 leadership) (higher education, non-profit, corporate, hospital leadership)
- Master of Science in Education, Literacy Studies: Early Childhood and Childhood Education
- Master of Science in Education, Literacy Studies: Middle and Adolescent Education
- Master of Science in Education, Literacy Studies: Adult*
- Master of Science in Education, Literacy Studies: Literacy Birth-Grade 6 and Special Education Grades 1-6
- Master of Science in Education, Early Childhood Special Education
- Master of Science in Education, Childhood Special Education
- Master of Science in Education, Adolescent Childhood Special Education


## Counselor Education, M.S.Ed. Program

Lehman offers a CACREP and CAEP accredited, 48-credit graduate program in Counselor Education. Graduates of the 48 -credit Counselor Education program are eligible for initial and permanent School Counselor Certification in New York State. Counselor Education students are also encouraged to pursue national school counselor certification through the National Board of Certified Counselors and the National Board for Professional Teaching Standards. Counselor Education faculty and students collaborate with Bronx and other New York City borough-based and suburban K-12 public and private schools, as well as college counseling and community-based organizations.

Students enrolled in Lehman's Counselor Education program are introduced to a comprehensive body of knowledge. The program focuses on the professional counselor's leadership roles in collaboration with teachers, administrators, families, caregivers, health professionals, community resource networks, and others to promote equity and success for all children, youth, and families through delivering specific competencies to all students and helping to close achievement, opportunity, and attainment gaps in K-12 schools.
School Counselors learn to be advocates for social justice and follow the professional counseling codes of ethics and standards of practice to empower culturally and linguistically diverse students. Interventions made by counselors in school,
community, and family systems acknowledge the importance of lifespan development and social change in promoting academic, career, college, and interpersonal access, equity, and success for all students and families. Students demonstrate professional school counseling, consultation, advocacy, leadership, and technology competencies throughout their course assignments at K-12 school-based experiences including practicum and internship.

## Admission Requirements for Counselor Education

Note: The deadline for consideration is March 15 for students who wish to begin attending classes during the fall term.

- A completed bachelor's or master's degree from an accredited institution of higher education and original transcripts from all prior undergraduate and/or graduate institutions.
- A minimum 3.0 G.P.A. from a completed undergraduate or graduate degree program.
- Two letters of recommendation evaluating the applicant's potential as a professional counselor in areas of leadership, advocacy, collaboration, coordination, counseling, technology, and skills in affirming culturally diverse student populations. These letters should be from persons such as college or university faculty, K-12 school personnel, and community and family agency personnel.
- A completed application, including a 1,000 -word essay consisting of responses to questions found in the graduate admissions on-line application, for the Counselor Education program.
- Currently certified New York State teachers may submit a copy of their teaching certificate. (Note: A teaching certificate is NOT required to become a school counselor in New York State.)
- A résumé

Candidates who satisfy the preliminary admissions requirements will be invited to a group interview and be asked at that time to provide a writing sample.

## Counselor Education Continuation Requirements

Meet with a faculty adviser to plan courses and receive course approvals prior to or during registration each semester.

Access and maintain liability insurance through student membership in the American School Counselor Association or the American Counseling Association for coverage during all pre-practicum, practicum, internship, and fieldwork experiences.
If conditions were placed on initial matriculation, all conditions must be met by the completion of the first 12 credit
hours.

Completion in the first year of study of New York State mandated training workshops in a) Child Abuse Identification \& Reporting, b) School Violence Prevention and c) DASA (Dignity for All Students Act):Prevention and Intervention of Harassment, Bullying, Cyberbullying \& Discrimination in Schools.

18 credits in beginning counseling courses with a minimum 3.0 GPA, a completed practicum supervision agreement form signed by the K-12 practicum placement site supervisor, and permission of advisor/Clinical Coordinator are required prior to placement in practicum.

36 credits in counseling courses with a minimum 3.0 GPA, a minimum of a grade of B in EDG 707, Practicum in Counseling, a completed internship supervision agreement form signed by the K-12 internship site supervisor, and permission of the advisor/Clinical Coordinator are required prior to placement in internship.

Demonstration of counseling, leadership, and consultation skills, multicultural competencies, and professional dispositions through school-based and course assignments.

## Counselor Education Graduation (Degree) Requirements

Completion of 48 approved graduate credits of study in counseling for Counselor Education candidates.

A minimum Grade Point Average of 3.0 (B).

Successful completion of two semesters of internship

## M.S. Ed. Program in Counselor Education Overview

Course Requirements
The following is a listing of the course requirements that lead to the M.S.Ed. in Counselor Education:
EDG $700 \quad$ Professional Identity in

EDG 701

EDG 702 Counseling
Counseling Theories and
Techniques
Multicultural Counseling
EDG 703 Human Development in 3
Counseling
EDG $704 \quad$ Career Counseling 3
EDG $705 \quad$ Group Counseling 3
EDG 706 Assessment in Counseling 3
EDG 707 Practicum in Counseling 3
EDG 708 Counseling Research, Program

EDG 709

EDG 732

EDG 739
EDG 743
EDG 744

Leadership, Advocacy,
Collaboration and Consultation in Schools
Abuse, Violence, and Chemical Dependency Counseling College Access Counseling

Electives by Advisement (6)
Elective Credit Options:

| EDG 731/EDG | Sexuality Counseling |
| :--- | :--- |
| 731/HEA 731 |  |
| EDG 734 | Multilingual School |
| EDG 735 | Counseling |
| EDG 736 | Family Counseling |
| Parenting within Diverse |  |
| EDG 737 | Family Structures <br> Couples Counseling: Theories <br> and Techniques |

## Bilingual School Counseling Extension

A 12-credit hour concentration in Bilingual School Counseling is offered for students in Counselor Education.

| Bilingual School Counseling Extension Certificate (12 <br> credits): |  |  |
| :--- | :--- | :--- |
| EDG 734 | Multilingual School Counseling | 3 |
| EBS 701 | Issues in Bilingualism | 3 |
| EBS 760 | The Bilingual Child with Mild to <br> Moderate Learning and Behavior | 3 |
| EDG 702 | Problems <br> Multicultural Counseling | 3 |

NOTE: New York State Education Department requires candidates for the bilingual certificate to pass the Bilingual Education Assessment (BEA). Lehman expects students to pass this exam before completing twelve (12) program credits or during the first year of matriculation.

## Family Counseling Extension

A 15-credit hour concentration in Family Counseling beyond the 48 credit hours is offered for students in Counselor Education.

## Family Counseling Extension

Family Counseling Extension Courses ( 15 credits):
EDG 731/EDG Sexuality Counseling 3

731/HEA 731
EDG 735
Family Counseling 3
EDG 736
Parenting within Diverse

EDG 737
Couples Counseling: Theories
and Techniques
Practicum in Counseling

EDG 707

## Educational Leadership, Master of Science in Education (M.S.Ed.) Program (30 Credits)

Effective: Spring 2020

## M.S.Ed. Program in Educational Leadership (School Building Leader) Overview

The purpose of the M.S.Ed. Program in Educational Leadership is to prepare candidates for positions as School Building Leaders (SBL), with an emphasis on urban leadership, and to fulfill the New York State licensure requirements for SBL. The program unites both the development of schools and the development of educational leaders by preparing individuals who can be catalysts for school change and improved student performance.
The program prepares students for positions of leadership (e.g., principals, assistant principals, department chairs, etc.) in urban schools with diverse populations. The curriculum is aligned with the New York State content-area requirements for programs preparing educational leaders, leading to certification as an SBL. The pedagogical content of the courses integrates practice with theory. Extensive field-based experiences, in collaboration with school and community agencies, are a central component throughout this program. Candidates develop their skills and capacities as leaders through both on-campus and school-based experiences with current educational leaders, teachers, counselors, other educational staff, parents, and students. The courses emphasize critical thinking, reflection, and problem solving.
The M.S.Ed. Program in Educational Leadership is committed to preparing candidates who demonstrate the nine essential characteristics of effective leaders, promoted by the New York State Education Department, and are based, in part, on the School of Education's Lehman Urban Transformative Education conceptual framework, whose mission is to facilitate the development of competent, caring, and qualified educators.

The following is a listing, by semester, of the courses that comprise the M.S.Ed. Program in Educational Leadership. The M.S.Ed. program can be completed in approximately 5 semesters.
Semester I (fall): (6 credits)
EDL 701 The Principal as a School
Building Leader
EDL 703 Collaborative and CommunityBased Leadership

Semester II (spring): ( 6 credits)
EDL $702 \quad$ Ethics in School Leadership
Instructional and Curriculum

## Leadership

## Semester III (summer): (6 credits)

| EDL 706 | Legal and Economic Issues and <br> the Administration of Schools |
| :--- | :--- |
| EDL 708 | Research, Assessment, and Data- <br> Driven Decision Making |

EDL 710 The Leadership Experience IBuilding Level

Notes:

- Most courses require that students participate in six hours of leadership experiences in schools and/or districts, over the course of the semester, in addition to the internship courses.


## M.S.Ed. Program in Educational Leadership Admission Requirements

## Note: Students admitted every fall semester.

1. A baccalaureate degree in a related field (e.g., teaching, school counseling, etc.) from an accredited college or university;
2. A minimum 3.0 (B) Grade Point Average from a completed undergraduate degree program;
3. New York State permanent or professional certification in classroom teaching, school counseling, school psychology, school social work, or the equivalent;
4. A minimum of three years of successful P-12 teaching and/or school counseling, school psychology, speechlanguage pathology or school social work experience;
5. Three letters of recommendation: at least one must be from a current or former school site supervisor who can best evaluate the candidate's potential as a $\mathrm{P}-12$ principal, and at least one must be from a faculty member from prior studies who can best evaluate the candidate's potential for success as a graduate student;
6. A current resume detailing all past professional employment and any community or professional organization leadership positions, memberships, and service; and
7. A 1,000 -word essay that discusses the following: a) reasons for wanting to pursue a degree and certification as a school building leader; b) candidate's philosophy on excellence in
urban educational leadership, including the specific characteristics that contribute to effective leadership; and c) current assessment of the state of educational leadership in urban schools, including what appears to be the greatest challenges and suggestions for overcoming these challenges.
8. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.
9. Candidates who satisfy the preliminary admissions requirements will be invited to a group interview.

## M.S.Ed. Program in Educational Leadership

 Continuation Requirements1. If conditions were placed on initial matriculation, all conditions must be met by the completion of the first 12 credits;
2. 24 credits in Educational Leadership courses with a minimum 3.0 Grade Point Average, a completed internship supervision agreement signed by the P-12 Internship Site Supervisor, and permission of the Program Coordinator are required prior to placement in EDL 710 (The Leadership Experience I) and EDL 711 (The Leadership Experience II); and
3. Demonstrated evidence of ethics, as well as instructional leadership, organizational, administrative, and collaborative skills, through school-based projects.

## M.S.Ed. Program in Educational Leadership Graduation Requirements

1. Completion of 30 approved graduate credits of study in educational leadership;
2. A minimum Grade Point Average of 3.0 (B);
3. Successful completion of 400 internship hours.

Notes:

- In order to receive institutional recommendation by Lehman College for New York State certification in SBL, students must complete all program requirements and submit proof that all New York State Education-mandated workshops have been completed.
- Candidates who apply for initial certification in School Building Leader on or after May 1, 2014, will be required to take the Revised School Building Leader Assessment (SBL) and Educating All Students Test (EAS). Candidates who applied for certification on or before April 30, 2014, but did not meet all the requirements for an initial certificate on or before April 30, 2014, will also be required to pass the Revised School Building Leader Assessment (SBL) and Educating All Students Test (EAS). Please visit the New York State Teacher Certification Examinations
website for most updated information about the new tests at https://www.nystce.nesinc.com/.

Educational Leadership MSEd Program Prior to Spring 2020

## Advanced Educational Leadership/District Leader Extension Program (12-15 credits)

Effective: Spring 2020

## Advanced Educational Leadership/District Leader Extension Program Overview

The purpose of the Advanced Educational Leadership/District Leader Extension Program is to prepare candidates for positions as School District Leaders (SDL), with an emphasis on urban leadership, and to fulfill the New York State licensure requirements for SDL. The programs unite both the development of schools/districts and the development of educational leaders by preparing individuals who can be catalysts for school/district change and improved student performance.

The program prepares students for positions of leadership (e.g., superintendents, assistant superintendents. directors, etc.) in urban districts with diverse populations. The curriculum is aligned with the New York State content-area requirements for programs preparing educational leaders, leading to certification as an SDL. The pedagogical content of the courses integrates practice with theory. Extensive fieldbased experiences, in collaboration with school, district and community agencies, are a central component throughout this program. Candidates develop their skills and capacities as leaders through both on-campus and school/district-based experiences with current educational leaders, teachers, counselors, other educational staff, parents, and students. The courses emphasize critical thinking, reflection, and problem solving.
The Advanced Educational Leadership/District Leader Extension Program is committed to preparing candidates who demonstrate the nine essential characteristics of effective leaders, promoted by the New York State Education Department, and are based, in part, on the School of Education's Lehman Urban Transformative Education conceptual framework, whose mission is to facilitate the development of competent, caring, and qualified educators.

The following is a listing, by semester, of the courses that comprise the Advanced Educational Leadership/District Leader Extension Program. The Advanced Certificate can be completed in approximately 2-3 semesters.

## Semester I (fall): (6 credits)

EDL 712
Leading an Effective School
District
EDL 716
Educational Governance, Policy,
and Law

## Semester II (spring): (6 credits)

EDL 717
Finance, Operations, and 3

EDL 721
Management
The Leadership Experience- 3 (May
District Extension

Notes:

- Most courses require that students participate in six hours of leadership experiences in schools and/or districts, over the course of the semester, in addition to EDL 721.
- Students who have not completed any leadership internship courses at Lehman College will be required to complete 400 hours ( 6 credits)of district-level leadership experiences. Therefore, these students will be required to register for EDL 721, again, in Summer I.

Admission Requirements for the Advanced Educational Leadership/District Leader Extension Program (leading to SDL certification):

Admission Requirements for the Advanced Educational Leadership/District Leader Extension Program (leading to SDL certification):

1. A master's degree in educational leadership from an accredited college or university (applicants may be required to take additional leadership courses pending transcript evaluation). (Applicants who possess a master's degree in a related field (e.g., teaching, school counseling, etc.) may be considered, depending on their current or prior leadership experience, as well as their career objectives. Such individuals may be required to take additional leadership courses pending transcript evaluation.)
2. A minimum of 48 graduate credits (applicants may be required to take additional credits to meet minimum credit requirement);
3. A minimum 3.0 (B) grade point average from a completed graduate degree program;
4. New York State initial or professional certification as a School Building Leader or the equivalent;
5. New York State permanent or professional certification in classroom teaching, school counseling, school psychology, or school social work or the equivalent;
6. A minimum of three years of successful $\mathrm{N}-12$ experience as a leader, teacher, counselor, psychologist, speechlanguage pathologist or social worker;
7. Three letters of recommendation: at least one must be from a current or former school site supervisor who can best
evaluate the candidate's potential as a district leader, and at least one must be from a faculty member from prior studies who can best evaluate the candidate's potential for success as a graduate student;
8. A current resume detailing all past professional employment and any community or professional organization leadership positions, memberships, and service; and
9. A 1000 -word essay that discusses the following: a) reasons for wanting to pursue a certification as a school district leader; b) candidate's philosophy on outstanding urban educational leadership, including the specific characteristics that contribute to effective leadership; c) current assessment of the state of educational leadership in urban schools, including what appears to be the greatest challenges and suggestions for overcoming these challenges; and d) brief analysis of a current educational policy, discussing its pros/cons and its impact on urban districts.
10. Candidates who satisfy the preliminary admissions requirements will be invited to a group interview.

## Advanced Educational Leadership/District Leader

 Extension Program Continuation Requirements1. If conditions were placed on initial matriculation, all conditions must be met by the completion of the first 6 credits;
2. A minimum 3.0 Grade Point Average, a completed internship supervision agreement signed by the region/district internship site supervisor, and permission of the Program Coordinator are required prior to placement in EDL 721 (The Leadership Experience/District Extension); and
3. Demonstrated evidence of ethics, as well as instructional leadership, organizational, administrative, and collaborative skills, through school-based and region/district-based projects.

## Advanced Educational Leadership/District Leader Extension Program Graduation Requirements

1. Completion of *12-15 approved graduate credits of study in educational leadership;
2. A minimum Grade Point Average of 3.0 (B); and
3. Successful completion of *200-400 internship hours.

## Note:

(Students who have not completed any leadership internship courses at Lehman College will be required to complete 400 hours ( 6 credits) of district-level leadership experiences. Therefore, these students will be required to graduate with 15 credits and 400 internship hours.)

The New York State Education Department has made passing the New York State Education Leadership Assessment in SDL
a condition of program completion (for SDL programs only as per State regulations). A student enrolled in the Advanced Educational Leadership/District Leader Extension Program leading to SDL certification who does not pass the SDL assessment can enter what the State has termed a "companion program," whereby the student can still receive the Advanced Certificate but will not be eligible for SDL certification at that time. The companion program has the same admission requirements, curriculum, and graduation requirements; however, students who do not pass the SDL assessment will not receive New York State SDL certification.

Advanced Educational Leadership District Leader Extension Program Prior to Spring 2020

## Organizational Leadership, Non-Certification Master of Science Program (MSOL) (30 Credits)

## MSOL Program Overview

The MSOL program prepares candidates to assume leadership positions within a variety of fields, such as higher education, not-for-profit, community-based agencies, corporate, healthcare and government, and is not focused on Pre-K-12 leadership.

The courses emphasize self assessment and reflection, critical thinking, decision making and problem solving, with extensive field-based experiences as a central component. The MSOL program provides knowledge of leadership roles and emphasizes interpersonal skills in order to accomplish its purpose of developing leaders capable of developing and sustaining successful, thriving organizations. This program offers practical tools to students, which immediately can be applicable in their respective places of work, and cultivates graduates who are knowledgeable and flexible to embrace a variety of leadership roles, communicate effectively, motivate staff, align individuals in cooperative efforts to meet organizational goals and lead across the ever-evolving diversity landscape of the 21 st century. The MSOL program is based, in part, on the School of Education's Lehman Urban Transformative Education conceptual framework, whose mission is to facilitate the development of competent, caring and qualified leaders.

The following is a listing, by semester, of the courses that comprise the MSOL program, which can be completed in approximately one full year ( 12 months).

```
Semester I (fall): (9 credits)
    EDL }80
    Holistic Leadership
    Ethical Leadership
    Leadership Seminar I: Needs
    Assessment
```

Semester II (winter): (3 credits)

## Semester III (spring): (9 credits)

| EDL 804 | Leading for Strategic Change | 4 |
| :--- | :--- | :--- |
| EDL 805 | Program Development and | 4 |
|  | Evaluation |  |
| EDL 809 | Leadership Seminar II: | 1 |
|  | Literature/Research |  |

## Semester IV (summer): (9 credits)

| EDL 806 | Managing Financial Resources | 4 |
| :--- | :--- | :--- |
| EDL 807 | Leveraging Human Capital | 4 |
| EDL 810 | Leadership Seminar III: | 1 |
|  | Implementation Plan |  |

Notes:

- Registration for all courses requires program approval (coordinator or advisor).
- Most courses require that students participate in 10-15 hours of fieldwork over the course of the semester.


## MSOL Program Admission Requirements

Note: Students admitted fall semester.

1. A baccalaureate degree from an accredited college or university.
2. A minimum 3.0 (B) grade point average from a completed undergraduate degree program;
3. Currently working;
4. Two letters of recommendation: one must be from a current supervisor at the applicant's place of employment who can best evaluate the applicant's leadership potential; and one must be from a faculty member from prior studies who can best evaluate the applicant's potential for success as a graduate student;
5. A current resume detailing all past professional employment and any community or professional organization leadership positions, memberships and service;
6. A 500 -word essay that discusses: a) why the applicant believes the Lehman MSOL is the right program for him/her; b) a description of his/her current (or most recent) role at work; c) a description of some of the challenges faced at work; and
7. Applicants who satisfy the preliminary admissions requirements will be invited to a group interview with the MSOL program coordinator.

## MSOL Program Continuation Requirements

1. Meet with Program Coordinator to plan courses and receive course approvals prior to or during registration each semester;
2. If conditions were placed on initial matriculation, all conditions must be met by the completion of the first 12 credits;
3. Minimum 3.0 grade point average in all coursework;
4. Demonstrated evidence of ethics, as well as organizational, administrative, and collaborative skills, through groupbased projects; and
5. Satisfactory progress on action research project.

## MSOL Program Graduation Requirements

1. Completion of 30 approved graduate credits of study in organizational leadership;
2. A minimum Grade Point Average of 3.0 (B); and
3. Successful completion of action research project.

## Literacy Studies, M.S.Ed. Program

Effective: Fall 2019. Students whose major declaration for this program is effective beginning in the Fall of 2019 or thereafter must follow these requirements. Students whose declarations were for previous semesters follow the requirements that were in effect at the time of declaration. See link below for the most recent Literacy Studies, M.S.Ed. Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.

The 36-credit Program in Literacy Studies leads to a Master of Science in Education degree. Registered in New York State, the program leads to professional certification in teaching literacy in two different concentrations: Birth- Grade 6 and Grades 5-12.

## Admission Requirements for Professional Certification

 in Teaching Literacy- A bachelor's degree or equivalent from an accredited college or university.
- Demonstrated ability to pursue graduate study successfully, that is, a minimum grade average of $B$ in the undergraduate records as a whole.
- An initial teaching certificate or qualify for initial certification within three semesters.
- An essay outlining career goals.
- Two letters of recommendation.
- An individual interview.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing and scores from the Academic Literacy Skills Test.


## Courses for Professional Certification in Teaching Literacy Birth-6th Grade (36 credits)

| EDR 712 | Acquisition and Development of Children |  |
| :---: | :---: | :---: |
|  | Instructional Approaches for | 3 |
|  | Language and Literacy |  |
|  | Development in Childhood |  |
|  | Education |  |
| EDR 722 | Assessing and Evaluating | 3 |
|  | Language and Literacy |  |
|  | Development in Childhood |  |
|  | Education |  |
| EDR 765 | Literacy in the Content Areas | 3 |
| EDR 731 | Practicum in Fostering | 6 |
|  | Language and Literacy |  |
|  | Development in Early |  |
|  | Childhood and Childhood |  |
|  | Education |  |
| EDR 767 | Project Seminar: Research on | 3 |
|  | Literacy I and II |  |
| EDR 752 | Teaching Comp Strategies Lit thru Children's Lit for the | 3 |
|  | Diverse Learner Early |  |
|  | Chldhd\&Chldhd Edu |  |
| EDR 768 | Project Seminar: Research on | 3 |
|  | Literacy I and II |  |
| EDR 529/ESC | Language, Literacy, and | 3 |
| 529/EDR 529 | Educational Technology |  |
| EDS 701 | Understanding Individuals with | 3 |
|  | Disabilities |  |
| EDR 605 | Professional Writing for | 3 |
|  | Educators |  |
| Courses for Professional Certification in Teaching |  |  |
| Literacy 5th-12th Grade ( 36 credits) |  |  |
| EDR 703 | Literacy Acquisition and | 3 |
|  | Development of Pre-Adolescents and Adolescents |  |
| EDR 713 | Instructional Approaches | 3 |
|  | Lang\&Literacy Dev for Diverse |  |
|  | Learners in Mid |  |
|  | Childhood\&Adolescent Edu |  |
| EDR 723 | Assessing and Evaluating | 3 |
|  | Language and Literacy |  |
|  | Development in Middle |  |
|  | Childhood and Adolescent Educat |  |
| EDR 753 | Teaching Com Strategies Literacy thru Young Adult's Lit Diverse | 3 |
|  | Learners Mid |  |
|  | Childhd\&Adolescent Edu |  |
| EDR 733 | Practicum in Fostering Language and Literacy Development in | 6 |
|  | Middle Childhood and Adolescent Education |  |
| EDR 767 | Project Seminar: Research on | 3 |


|  | Literacy I and II |  |
| :--- | :--- | ---: |
| EDR 765 | Literacy in the Content Areas | 3 |
| EDR 768 | Project Seminar: Research on <br> Literacy I and II | 3 |
| EDR 529/ESC | Language, Literacy, and | 3 |
| 529/EDR 529 | Educational Technology <br> EDS 701 | Understanding Individuals with |
| EDR 605 | Disabilities <br> Professional Writing for | 3 |
|  | Educators |  |

## M.S.Ed. Program in Literacy Studies Continuation Requirements

1. Maintain GPA of 3.0.
2. Meet any conditions placed on initial matriculation before the completion of 12 graduate credits. College and Departmental policies regarding academic probation also apply.

## M.S.Ed. Program in Literacy Studies Graduation Requirements

Students must complete the required graduate credits of study pertaining to their program. Students must earn a minimum overall GPA of 3.0 in their course work to be recommended by the College for certification.
Literacy Studies M.S.Ed. Program Prior to Fall 2019
For previous bulletins click here

## Literacy and Special Education, Birth-Grade 6, Dual Certificate

The dual certification program is designed for teachers who have already had an initial certification in elementary or childhood education. This 45-48 credit program will lead to professional certification in Literacy, Birth-Grade 6 and initial certification in teaching Students with Disabilities (SWD), Grades 1-6. The dual certification program will prepare qualified candidates to acquire knowledge, skills, expertise, and dispositions so that they can teach literacy skills to different type of learners, particularly develop the proficiencies in teaching literacy to Students with Disabilities.

## Admissions Requirements

- Initial or provisional certification in elementary or childhood education.
- A bachelor's degree with a minimum 3.0 GPA.
- Two letters of recommendation.
- An essay delineating reasons for choosing this program and discussing career goals.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative
reasoning, and analytical writing and scores from the Academic Literacy Skills Test


## Degree and Certification Requirements

To qualify for the M.S. in Literacy Birth-6 and Special Education 1-6, students must complete 45-48 credits. Upon completion of the program and meeting all the certification requirements by the New York State Education Department, the students will be recommended for initial/professional certification: a) in Teaching Literacy Birth-grade 6 and b) in Special Education Grades 1-6.

| Program of study |  |  |
| :---: | :---: | :---: |
| EDR 529/ESC | Language, Literacy, and | 3 |
| 529/EDR 529 | Educational Technology |  |
| EDR 702 | Language and Literacy Acquisition and Development of Children | 3 |
| EDR 712 | Instructional Approaches for Language and Literacy Development in Childhood Education | 3 |
| EDR 722 | Assessing and Evaluating Language and Literacy Development in Childhood Education | 3 |
| EDR 752 | Teaching Comp Strategies Lit thru Children's Lit for the Diverse Learner Early Chldhd\&Chldhd Edu | 3 |
| EDR 731 | Practicum in Fostering Language and Literacy Development in Early Childhood and Childhood Education | 6 |
| EDE 743 | Diagnosis of Difficulties in Learning Elementary School Mathematics | 3 |
| EDS 701 | Understanding Individuals with Disabilities | 3 |
| EDS 709 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childhood Students | 3 |
| EDS 741 | Psycho-educational Evaluation of Children with Learning Problems | 3 |
| EDS 743 | Behavioral Assessment, Management, and Change | 3 |
| EDS 719 | Student Teaching of Diverse Learners with Disabilities in Inclusive and Specialized Settings | 3 |

EDR 767 Project Seminar: Research on 3 Literacy I and II
EDR 768 Project Seminar: Research on 3 Literacy I and II

## Dual Certification in Literacy Birth-Grade 6 and Special Education Grades 1-6, M.S.Ed. Program

Effective: Fall 2019. Students whose major declaration for this program is effective beginning in the Fall of 2019 or thereafter must follow these requirements. Students whose declarations were for previous semesters follow the requirements that were in effect at the time of declaration. See link below for the most recent Teaching Literacy Birth-Grade 6 and Special Education Grades 1-6, MSEd Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.

The dual certification program is designed for teachers who have already had an initial certification in elementary or childhood education. This $45-48$ credit program will lead to professional certification in Literacy, Birth-Grade 6 and initial certification in teaching Students with Disabilities (SWD), Grades 1-6. The dual certification program will prepare qualified candidates to acquire knowledge, skills, expertise, and dispositions so that they can teach literacy skills to different type of learners.

## Admissions Requirements

- A bachelor's degree or equivalent from an accredited college or university.
- Demonstrated ability to pursue graduate study successfully, that is, a minimum grade average of 3.0 in the undergraduate records as a whole.
- An initial teaching certificate or qualify for initial certification within three semesters.
- An essay outlining career goals.
- Two letters of recommendation.
- An individual interview.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing. Waivers for this requirement may apply. Please contact the program coordinator for more information.


## Degree and Certification Requirements

To qualify for the M.S. Dual Certification in Literacy Birth-6 and Special Education 1-6, students must complete 45-48 credits. Upon completion of the program and meeting all the certification requirements by the New York State Education Department, the students will be recommended for
initial/professional certification: a) in Literacy Birth-grade 6 and b) in Special Education Grades 1-6.

| Program of study |  |
| :---: | :---: |
| EDR 529/ESC | Language, Literacy, and |
| 529/EDR 529 | Educational Technology |
| EDR 702 | Language and Literacy Acquisition and Development of Children |
| EDR 712 | Instructional Approaches for Language and Literacy Development in Childhood Education |
| EDR 722 | Assessing and Evaluating Language and Literacy Development in Childhood Education |
| EDR 752 | Teaching Comp Strategies Lit thru Children's Lit for the Diverse Learner Early Chldhd\&Chldhd Edu |
| EDR 731 | Practicum in Fostering Language and Literacy Development in Early Childhood and Childhood Education |
| EDE 743 | Diagnosis of Difficulties in Learning Elementary School Mathematics |
| EDS 701 | Understanding Individuals with Disabilities |
| EDS 709 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childhood Students |
| EDS 741 | Psycho-educational Evaluation of Children with Learning Problems |
| EDS 743 | Behavioral Assessment, Management, and Change |
| EDS 719 | Student Teaching of Diverse Learners with Disabilities in Inclusive and Specialized Settings |
| EDS 720 | Student Teaching Seminar |
| EDR 767 | Project Seminar: Research on Literacy I and II |
| EDR 768 | Project Seminar: Research on Literacy I and II |

Teaching Literacy Birth Grade 6 and Special Education Grades 1-6 MSEd Program Prior to Fall 2019
For previous bulletins click here

## Graduate Programs in Special Education

Graduate programs in special education are designed to develop competent, caring, and qualified special educators to teach diverse learners who present with disabilities in both inclusive and specialized urban settings. The programs' philosophical, conceptual, and instructional underpinnings derive from values and standards established by the Council for Exceptional Children (CEC) and the New York State Learning Standards, as well as the Lehman Urban Transformative Education (LUTE) framework, which recognizes difference and diversity as foundations for learning and teaching.
Lehman's programs work collaboratively with school personnel, parents, family and community members, and local community organizations to create humanistic, nurturing environments that are responsive to the needs of children in urban settings.
Lehman has several options of study available in special education:

For entering students who have already earned an Initial Teaching Certificate from New York State at either the Early Childhood, Childhood, or Adolescent developmental level, concentrations are available in Early Childhood Special Education, Childhood Special Education, Students with Disabilities 7-12 Generalist (Adolescent Special Education), Bilingual Early Childhood Special Education, and Bilingual Childhood Special Education.
For entering students who have had no prior training in education, a Dual Certification Program in Special Education and General Education is available at both the Early Childhood and the Childhood levels, as well as the bilingual extension. Students will be required to take twelve additional credits (to be identified in consultation with a special education adviser) in addition to the 36 credits of the special education masters degree and/or the additional credits required for the bilingual extension.
Students who have had no prior training in education at the grades 7-12 level and are interested in pursuing a generalist certificate, which would allow them to teach in supportive roles such as consultant teachers, resource room service providers, and integrated co-teachers, may enroll in the Students with Disabilities 7-12 Generalist program, contingent on meeting New York State teacher certification prerequisites.
The Early Childhood Special Education, Childhood Special Education, Students with Disabilities 7-12 Generalist (Adolescent Special Education), Bilingual Early Childhood Special Education, and Bilingual Childhood Special Education Programs are structured non-categorically (not by any one specific disability condition), and require students to
enroll in the program that corresponds to the developmental level of their Initial Teaching Certificate or the developmental level at which they intend to teach. Field work, supervised practica teaching, and student teaching in both inclusive and specialized settings are integral to the programs.

Upon completion of one of the five Special Education programs, candidates will qualify for an Initial or a Professional Teaching Certificate in Teaching Students with Disabilities at a specific developmental level, a Master's degree in Special Education or Bilingual Special Education at a specific developmental level, and a Professional Teaching Certificate in the area of the Initial Teaching Certificate earned.

## Extensions and Annotations to the Initial/Professional Certificate in Teaching Students with Disabilities

- A Bilingual Extension to the Initial/Professional Certificate in Teaching Students with Disabilities is available by completing a 15-18-credit Bilingual Extension Module.
- An Annotation for Teaching Students with Severe Disabilities is available to any student who completes one of the five programs of study in special education. This annotation requires an additional 9 credits of study involving characteristics of individuals with severe disabilities, collaborative partnership in the provision of services for individuals with severe disabilities, assistive technologies for individuals with severe disabilities, and transition and lifespan services.
- A 12-credit Extension in Teaching Students Who are Gifted and Talented (EDS 725, EDS 726, EDS 727, and EDS 728) is available to any student who already holds an Initial/Professional Certificate as Teacher of Early Childhood (Birth to Grade 2), Childhood (Grades 1-6), Middle and High School Academic Subjects (Grades 7-12), TESOL (Birth-Grade 12), Literacy Specialist: Early Childhood (Birth-Grade 2), Literacy Specialist: Childhood (Grades 1-6), Literacy Specialist: Middle Childhood and Adolescent Education (Grades 5-12), Early Childhood Special Education (Birth to Grade 2), Childhood Special Education (Grades 1-6), Bilingual Early Childhood Special Education, Bilingual Childhood Special Education and Adolescent Special Education in an Academic Subject (Grades 7-12).

The extension courses focus on the nature and needs of culturally and linguistically diverse gifted and talented students and on best practices for teaching students with these characteristics.

## Admission Requirements to the 36-Credit M.S.Ed. Program in Early Childhood or Childhood Special Education

Admission requirements for applicants who already possess New York State certification:

1. A bachelor's degree from an accredited college or university.
2. A minimum undergraduate grade average of 3.0.
3. An Initial or Professional New York State Certificate in teaching at the Early Childhood or Childhood level.
4. A Special Education concentration at the same developmental level as their earned Initial/Professional NYS Teaching Certificate.
5. An essay outlining career goals.
6. A graded scholarly paper from either an undergraduate course or a graduate course of study previously completed.
7. Two letters of recommendation.
8. Participation in an interview.

Admission Requirements to the 36-Credit M.S.Ed.
Program in Students with Disabilities Grade 7-12 Generalist

- A bachelor's degree from an accredited college or university.
- A minimum undergraduate grade average of 3.0.
- An Initial or Professional New York State Certificate in teaching in a content area at the grades 7-12 level, or 6 semester hours at the graduate or undergraduate levels in each of the following subject areas: mathematics, English language arts, social studies, and science. Students who do not meet this admission requirement may be advised to take additional coursework as co-requisites to the program to remediate any academic deficiencies.
- An essay outlining career goals.
- A graded scholarly paper from either an undergraduate course or a graduate course of study previously completed.
- Two letters of recommendation.
- Participation in an interview.

Admission Requirements to the 48-Credit Dual Certification Program in Early Childhood Special Education and Early Childhood Education or Childhood Special Education and Childhood Education for applicants who do not possess New York State certification:

1. A bachelor's degree from an accredited college or university.
2. A minimum undergraduate grade average of 3.0.
3. An essay outlining career goals.
4. A graded scholarly paper from either an undergraduate course or a graduate course of study previously completed.
5. Two letters of recommendation.
6. Participation in an interview.
7. Certification of placement and assurance of ability to complete all the program and course requirements.

Admission Requirements to the 42-Credit Certification Program in Bilingual Early Childhood or Childhood Special Education for applicants who already possess New York State certification:

1. A bachelor's degree from an accredited college or university.
2. A minimum undergraduate grade average of 3.0.
3. An Initial or Professional New York State Certificate in teaching at the Early Childhood or Childhood developmental level.
4. An essay outlining career goals.
5. A graded scholarly paper from either an undergraduate course or a graduate course of study previously completed.
6. Two letters of recommendation.
7. Successful participation in a bilingual interview.
8. A successful on-site written sample in a language other than English; or score in the NYS Bilingual Education Assessment (BEA). At this time Spanish will be the only language accepted.

Admission Requirements to the 48-Credit Dual Certification Program in Bilingual Early Childhood or Childhood Special Education and Bilingual Early Childhood Education or Childhood Education for applicants who do not possess New York State certification:

1. A bachelor's degree from an accredited college or university.
2. A minimum undergraduate grade average of 3.0.
3. An essay outlining career goals.
4. A graded scholarly paper from either an undergraduate course or a graduate course of study previously completed.
5. Two letters of recommendation.
6. Successful participation in a bilingual interview.
7. A successful on-site written sample in a language other than English; or score in the NYS Bilingual Education Assessment (BEA). At this time Spanish will be the only language accepted.
8. Certification of placement and assurance of ability to complete all the program and course requirements.

## Continuation Requirements for Students in the Special Education Sequences of Study

1. An earned GPA of 3.0 or higher through the first 18 credits of graduate study.
2. If conditions were placed on the initial matriculation involving additional course work, all conditions must be met on or before the completion of 18 graduate credits. In order to register for course work beyond 18 graduate credits, the student may be required to provide a 15 - to $30-$ minute videotape of a lesson with a whole class as part of a performance evaluation. Students will receive appropriate feedback and concrete suggestions for improvement, where needed. Each student may be required to integrate feedback and demonstrate improvement on a second videotape to be presented prior to graduation.
3. Students must take and submit grades earned on the Special Education Content Specialty Test.

Continuation Requirements for Students in the Dual Certification Special Education and General Education Sequences of Study.

1. An earned GPA of 3.0 or higher through the first 18 credits of graduate study.
2. If conditions were placed on the initial matriculation involving additional course work, all conditions must be met on or before the completion of 18 graduate credits. In order to register for course work beyond 18 graduate credits, the student may be required to provide a 15 -to $30-$ minute videotape of a lesson with a whole class as part of a performance evaluation.
3. Students must take and submit scores from the MultiSubject Content Specialty Test and the Special Education Content Specialty Test.

## Graduation Requirements

- Complete a minimum of 36 graduate credits of study in an approved Special Education concentration.
- A minimum GPA of 3.0 throughout the 36 -credit concentration.
- Candidates are required to pass edTPA (Teacher Performance Assessments), Educating All Students Test, and Revised Content Specialty Test. Visit the New York State Teacher Certification Examinations website for most updated information about the new tests at http://www.nystce.nesinc.com/NY_annProgramUpdate.asp


## Special Education Overview

While each option below is designed to develop expertise in teaching students with disabilities at a specific developmental level, a common core of courses is required across all special education options
The 36-Credit M.S.Ed. Program in Early Childhood:

| EDS 701 | Understanding Individuals with Disabilities |
| :---: | :---: |
| EDS 702 | The Young Child with Special Needs |
| EDS 743 | Behavioral Assessment, Management, and Change |
| EDS 703 | Practicum in Behavioral <br> Assessment and Management of Culturally and Linguistically Diverse Young Chi |
| EDS 704 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Young Children with |
| EDS 705 | Practicum in Curriculum and Instruction for Culturally and Linguistically Diverse Young Children wit |
| EDS 741 | Psycho-educational Evaluation of Children with Learning Problems |
| EDS 706 | Practicum in Assessment for Culturally and Linguistically Diverse Young Children with Special Needs |
| EDS 715 | Research in Special Education |
| EDS 718 | Culminating Master's Project |
| EDS 719 | Student Teaching of Diverse Learners with Disabilities in Inclusive and Specialized Settings |
| EDS 720 | Student Teaching Seminar |
| The 36-Cr | .Ed. Program Childhood: |
| EDS 701 | Understanding Individuals with Disabilities |
| EDS 707 | The Childhood Student with Disabilities |
| EDS 743 | Behavioral Assessment, Management, and Change |
| EDS 708 | Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Childhood Students with Disabilities |
| EDS 709 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childhood Students |
| EDS 710 | Practicum in Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childh |
| EDS 741 | Psycho-educational Evaluation of |

EDS 711

EDS 715
EDS 718
EDS 719

| Children with Learning Problems |  |
| :--- | ---: |
| Practicum in Assessment of | 3 |
| Culturally and Linguistically |  |
| Diverse Childhood Students with |  |
| Disabilities |  |
| Research in Special Education | 3 |
| Culminating Master's Project | 3 |
| Student Teaching of Diverse | 3 |
| Learners with Disabilities in |  |
| Inclusive and Specialized |  |
| Settings |  |
| Student Teaching Seminar | 3 |

The 36-Credit M.S.Ed. Program in Students with Disabilities Grade 7-12 Generalist:
EDS 712 The Adolescent with Disabilities 3

EDS 743 Behavioral Assessment, 3
Management, and Change
EDS 714 Curr\&Instructional Pract
Culturally\&Linguistically Diverse
Adolescents w/Disabilities Inclusive
Set
EDS $716 \quad$ Practicum in
Curriculum\&Instruction for
Culturally\&Linguistically Diverse
Adolescents w/disabilities
EDS $741 \quad$ Psycho-educational Evaluation of 3
Children with Learning Problems
EDS 715 Research in Special Education 3
EDS 719 Student Teaching of Diverse 3
Learners with Disabilities in
Inclusive and Specialized Settings
EDS $720 \quad$ Student Teaching Seminar 3
ESC 519 Teaching Science in Middle and 3
High School
ESC 532 Teaching Mathematics in Middle 3
and High School
ESC 533 Teaching World History in Middle 3
and High School
Or
ESC 534 Teaching U.S. History and 3
Government

Instructional Approaches
Lang\&Literacy Dev for Diverse
Learners in Mid
Childhood\&Adolescent Edu
The 48-Credit Dual Certification Program in Early Childhood Special Education and General Education:
EDS 701
Understanding Individuals with Disabilities
The Young Child with Special

|  | Needs |  | EDS 710 | Practicum in Curriculum and | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Early Childhood Education | 12 |  | Instructional Practices for |  |
|  | Courses |  |  | Culturally and Linguistically |  |
| EDS 743 | Behavioral Assessment, | 3 | EDS 741 | Diverse Childh |  |
|  | Management, and Change |  |  | Psycho-educational Evaluation | 3 |
| EDS 703 | Practicum in Behavioral | 3 |  | of Children with Learning |  |
|  | Assessment and Management of |  |  | Problems |  |
|  | Culturally and Linguistically |  | EDS 711 | Practicum in Assessment of | 3 |
|  | Diverse Young Chi |  |  | Culturally and Linguistically |  |
| EDS 704 | Curriculum and Instructional | 3 |  | Diverse Childhood Students with Disabilities |  |
|  | Practices for Culturally and |  |  |  |  |  |
|  | Linguistically Diverse Young |  | EDS 715 | Research in Special Education | 3 |
|  | Children with |  | EDS 718 | Culminating Master's Project | 3 |
| EDS 705 | Practicum in Curriculum and | 3 | EDS 719 | Student Teaching of Diverse | 3 |
|  | Instruction for Culturally and |  |  | Learners with Disabilities in |  |
|  | Linguistically Diverse Young |  |  | Inclusive and Specialized |  |
|  | Children wit |  |  | Settings |  |
| EDS 741 | Psycho-educational Evaluation | 3 | EDS 720 | Student Teaching Seminar | 3 |
|  | of Children with Learning |  | Childhood Education Courses: From the Department of Early |  |  |
|  | Problems |  | Childhood and Childhood Education to be determined upon |  |  |
| EDS 706 | Practicum in Assessment for | 3 |  |  |  |  |  |  |
|  | Culturally and Linguistically |  |  |  |  |
|  | Diverse Young Children with |  | The 42-Credit Certification Program in Bilingual Early Childhood Special Education: |  |  |
|  | Special Needs |  |  |  |  |
| EDS 715 | Research in Special Education | 3 | EBS 701 | Issues in Bilingualism | 3 |
| EDS 718 | Culminating Master's Project | 3 | EDS 702 | The Young Child with Special | 3 |
| EDS 719 | Student Teaching of Diverse | 3 | EDS 743 | Needs |  |
|  | Learners with Disabilities in |  |  | Behavioral Assessment, Management, and Change | 3 |
|  | Inclusive and Specialized |  |  |  |  |
|  | Settings |  | EDS 703 | Practicum in Behavioral |  |
| EDS 720 | Student Teaching Seminar | 3 |  | Assessment and Management of |  |
| Early Childhood Education Courses: From the Department of Early Childhood and Childhood Education to be determined upon consultation with the Special Education Advisor: |  |  |  | Culturally and Linguistically Diverse Young Chi |  |
|  |  |  | EDS 704 | Curriculum and Instructional Practices for Culturally and | 3 |
| The 48-Credit Dual Certification Program in Childhood |  |  |  | Linguistically Diverse Young |  |
| Special Education and Childhood Education: |  |  |  | Children with |  |
| EDS 701 | Understanding Individuals with | 3 | EDC 738 | Literacy in Bilingual/Bicultural Early Childhood Settings, Birth to | 3 |
|  | Disabilities |  |  |  |  |
| EDS 707 | The Childhood Student with | 3 |  | Grade 2 |  |
|  | Disabilities |  | EDC 739 | Social Studies Concept | 3 |
|  | Childhood Education Courses | 12 |  | Development in |  |
| EDS 743 | Behavioral Assessment, | 3 |  | Bilingual/Bicultural Early Childhood Settings, Birth to |  |
|  | Management, and Change |  |  |  |  |  |
| EDS 708 | Practicum in Behavioral | 3 |  | Grade2 |  |
|  | Assessment and Management of |  | EBS 741 | Psycho-educational Evaluation of | 3 |
|  | Culturally and Linguistically |  |  | Bilingual Children with Mild to |  |
|  | Diverse Childhood Students with |  |  | Moderate Learning and Behavior |  |
|  | Disabilities |  |  | Problems |  |
| EDS 709 | Curriculum and Instructional | 3 | EDS 706 | Practicum in Assessment for | 3 |
|  | Practices for Culturally and |  |  | Culturally and Linguistically |  |
|  | Linguistically Diverse Childhood |  |  | Diverse Young Children with |  |
|  | Students |  |  | Special Needs |  |

EBS 701, EBS 741: Not expected to be offered in 2016-2017.

## Childhood Special Education:

| EDS 715 | Research in Special Education | 3 |
| :---: | :---: | :---: |
| EDS 718 | Culminating Master's Project | 3 |
| EDS 719 | Student Teaching of Diverse | 3 |
|  | Learners with Disabilities in |  |
|  | Inclusive and Specialized Settings |  |
| EDS 720 | Student Teaching Seminar | 3 |
| EBS 701, EBS 741: Not expected to be offered in 2016-2017. |  |  |
| The 42-Credit Certification Program in Bilingual |  |  |
| Childhood Special Education: |  |  |
| EBS 701 | Issues in Bilingualism | 3 |
| EDS 707 | The Childhood Student with | 3 |
|  | Disabilities |  |
| EDS 743 | Behavioral Assessment, | 3 |
|  | Management, and Change |  |
| EDS 708 | Practicum in Behavioral | 3 |
|  | Assessment and Management of |  |
|  | Culturally and Linguistically |  |
|  | Diverse Childhood Students with |  |
|  | Disabilities |  |
| EDS 709 | Curriculum and Instructional | 3 |
|  | Practices for Culturally and |  |
|  | Linguistically Diverse Childhood |  |
|  | Students |  |
| EDE 738 | Learning and Teaching Literacy in | 3 |
|  | Bilingual/Bicultural Childhood |  |
|  | Settings: Grades 1 to 6 |  |
| EDE 739 | Learning and Teaching Social | 3 |
|  | Studies in Bilingual/Bicultural |  |
|  | Childhood Settings: Grades 1 to 6 |  |
| EBS 741 | Psycho-educational Evaluation of | 3 |
|  | Bilingual Children with Mild to |  |
|  | Moderate Learning and Behavior |  |
|  | Problems |  |
| EDS 711 | Practicum in Assessment of | 3 |
|  | Culturally and Linguistically |  |
|  | Diverse Childhood Students with |  |
|  | Disabilities |  |
| EDS 715 | Research in Special Education | 3 |
| EDS 718 | Culminating Master's Project | 3 |
| EDS 719 | Student Teaching of Diverse | 3 |
|  | Learners with Disabilities in |  |
|  | Inclusive and Specialized Settings |  |
| EDS 720 | Student Teaching Seminar | 3 |

EBS 701, EBS 741: Not expected to be offered in 2016-2017.
The 48-Credit Dual Certification Program in Bilingual Early Childhood Special Education and Bilingual Early Childhood Education:
EBS 701 Issues in Bilingualism 3

EDS 702 The Young Child with Special 3 Needs
EDS 743
Behavioral Assessment,
EBS 70
The Childhood Student with 3
Disabilities

Management, and Change

Assessment and Management of
保urally and Linguistically

Disabilities

Practice for Culturlly
Linguistically Diverse Childhood
Students

Bilingual/Bicultural Childhood
Settings: Grades 1 to 6

Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6

Bilingual Children with Mild to
Moderate Learning and Behavior
roblems

Culturally and Linguically

EDS 703

EDS 704

EDC 738

EDC 739

3

EDC 715

EDC 717

EBS 741

Management, and Change
Practicum in Behavioral
Assessment and Management of
Culturally and Linguistically
Diverse Young Chi
Curriculum and Instructional
Practices for Culturally and
Linguistically Diverse Young
Children with
Literacy in Bilingual/Bicultural
Early Childhood Settings, Birth to Grade 2

Social Studies Concept
Development in
Bilingual/Bicultural Early
Childhood Settings, Birth to Grade2

EBS 701, EBS 741: Not expected to be offered in 2016-2017.
The 48-Credit Dual Certification Program in Bilingual Childhood Special Education and Bilingual Childhood

EDS 715
EDS 718
EDS 719

EDS 720
EDS 706

EBS 701
EDS 707
EDS 743

EDS 708

3
I

## Education: <br> Eduction:

EDS 709

Issues in Bilingualism 3
The Childhood Student with 3
Disabilities
Behavioral Assessment,
Management, and Change
Practicum in Behavioral
Assessment and Management of
Culturally and Linguistically
Diverse Childhood Students with Disabilities
Curriculum and Instructional


To obtain Special Education Certification in New York State, all applicants will be required to pass the New York State Content Specialty Test in Special Education and the NYS Bilingual Education Assessment (BEA) when appropriate.

## Special Education Teacher, Birth to 2: Advanced Certificate Program

Effective: Fall 2019. Students who entered this certificate program beginning in the Fall of 2019 or thereafter must follow these requirements. Students who entered this program prior to Fall of 2019 follow the requirements that were in effect at the time they began the program. See link below for the most recent Special Education Teacher, Birth to 2: Advanced Certificate Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to
review your requirements and track your progress

The Advanced Certificate in Students with Disabilities (Birth-
2) program is designed for teachers who are already certified
in Early Childhood Education, Birth-2. This 18 credit program authorizes a teacher who is currently certified in Early
Childhood Education, Birth-2, to teach Students with Disabilities in Birth-2 for which there is a demonstrated shortage of certified teachers.

## Admissions Requirements:

1. A Lehman College's graduate or current graduate student who has possessed a valid provisional, initial, permanent, or professional certificate in Early Childhood Education, Birth-2.
2. Copies of all undergraduate and graduate transcripts showing a minimum 3.0 GPA in undergraduate coursework and a B or better in all graduate coursework.
3. Two letters of recommendation.
4. Participation in an interview
5. An essay outlining career goals.
6. A final evaluation from the early childhood student teaching experience and submission of a capstone project completed in early childhood education.

The program of study will consist of the following: a) a 3credit pre-requisite course, b) 9-credit core courses, and c) 6credit practicum courses. A maximum of 6 credits may be transferred if candidates have had equivalent graduate courses and educational experiences within the past five years. The transfer of the credits is subject to the approval by the coordinator in special education.

Once a student has completed the Advanced Certificate Program, all 18 credits can be transferred to the Special Education Teacher, Birth-2 MS in Education Program within five years and upon approval of the coordinator in special education.

## Existing Course Descriptions:

Pre-requisite Courses (3 credits)
EDS $701 \quad$ Understanding Individuals with Disabilities

## Core Courses (9 Credits)

EDS 743
Behavioral Assessment, Management, and Change
EDS $704 \quad$ Curriculum and Instructional Practices for Culturally and Linguistically Diverse Young Children with
EDS 741 Psycho-educational Evaluation of Children with Learning Problems

## Practicum (6 credits)

Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Young Chi Practicum in Curriculum and Instruction for Culturally and Linguistically Diverse Young Children wit

Special Education Teacher Birth to 2 Advanced Certificate Program Prior to Fall 2019

For previous bulletins click here

## Special Education Teacher, 1-6: Advanced Certificate Program

Effective: Fall 2019. Students who entered this certificate program beginning in the Fall of 2019 or thereafter must follow these requirements. Students who entered this program prior to Fall of 2019 follow the requirements that were in effect at the time they began the program. See link below for the most recent Special Education Teacher, 1-6: Advanced Certificate Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.
The Advanced Certificate in Students with Disabilities (grades 1-6) program is designed for teachers who are already certified in Childhood Education, Grades 1-6. This 18 credit program authorizes a teacher who is currently certified in Childhood Education, Grades 1-6 to teach Students with Disabilities in Grades 1-6 for which there is a demonstrated shortage of certified teachers.

## Admissions Requirements:

1. A Lehman College's graduate or current graduate student who has possessed a valid provisional, initial, permanent, or professional certificate in Childhood Education, Grades 1 through 6.
2. Copies of all undergraduate and graduate transcripts showing a minimum 3.0 GPA in undergraduate coursework and a B or better in all graduate coursework.
3. Two letters of recommendation.
4. Participation in an interview
5. An essay outlining career goals.
6. A final evaluation from the childhood student teaching experience and submission of a capstone project completed in childhood education.

The program of study will consist of the following: a) a 3credit pre-requisite course, b) 9-credit core courses, and c) 6credit practicum courses. A maximum of 6 credits may be transferred if candidates have had equivalent graduate courses and educational experiences within the past five years. The
transfer of the credits is subject to the approval by the coordinator in special education. Once a student has completed the Advanced Certificate Program, all 18 credits can be transferred to the Special Education Teacher, Grades 16 MS in Education Program within five years and upon approval of the coordinator in special education.

## Existing Course Descriptions:

Pre-requisite Courses (3 credits)

| EDS 701 | Understanding Individuals with Disabilities | 3 |
| :---: | :---: | :---: |
| Core Courses (9 Credits) |  |  |
| EDS 743 | Behavioral Assessment, Management, and Change | 3 |
| EDS 709 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childhood Students | 3 |
| EDS 741 | Psycho-educational Evaluation of Children with Learning Problems | 3 |
| Practicum (6 credits) |  |  |
| EDS 708 | Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Childhood Students with Disabilities | 3 |
| EDS 710 | Practicum in Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childh | 3 |
| Special Education Teacher 1-6 Advanced Certificate Program Prior to Fall 2019 |  |  |
| For previou | click here |  |

Special Education, 7-12: Advanced Certificate
Program
Effective: Fall 2019. Students who entered this certificate program beginning in the Fall of 2019 or thereafter must follow these requirements. Students who entered this program prior to Fall of 2019 follow the requirements that were in effect at the time they began the program. See link below for the most recent Special Education, 7-12: Advanced Certificate Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.

The Advanced Certificate in Students with Disabilities (grades 7-12) program is designed for teachers who are already certified in Adolescence Education, Grades 7-12 in a content area. This 18 credit program authorizes a teacher who is currently certified in Adolescence Education, Grades 7-12 to
teach Students with Disabilities in Grades 7-12 for which there is a demonstrated shortage of certified teachers.

## Admissions Requirements:

1. A Lehman College's graduate or current graduate student who has possessed a valid provisional, initial, permanent, or professional certificate in teaching mathematics, English language arts, social studies or science, grades 7-12.
2. Copies of all undergraduate and graduate transcripts showing a minimum 3.0 GPA in undergraduate coursework and a B or better in all graduate coursework.
3. Two letters of recommendation.
4. Participation in an interview
5. An essay outlining career goals.
6. A final evaluation from the secondary student teaching experience and submission of a capstone project completed in secondary education.
The program of study will consist of a) a 3-credit pre-requisite course, b) 9-credit core courses, and c) 6-credit practicum courses. A maximum of 6 credits may be transferred if candidates have had equivalent graduate courses and educational experiences within the past five years. The transfer of the credits is subject to the approval by the coordinator in special education. Once a student has completed the Advanced Certificate Program, all 18 credits can be transferred to the Special Education Teacher, Grades 712 MS in Education Program within five years and upon approval of the coordinator in special education.

## Existing Course Descriptions:

Pre-requisite Courses (3 credits)

| EDS 701 | Understanding Individuals with Disabilities | 3 |
| :---: | :---: | :---: |
| Core Courses (9 Credits) |  |  |
| EDS 743 | Behavioral Assessment, Management, and Change | 3 |
| EDS 714 | Curr\&Instructional Pract Culturally\&Linguistically Diverse Adolescents w/Disabilities Inclusive Set | 3 |
| EDS 741 | Psycho-educational Evaluation of Children with Learning Problems | 3 |
| Practicum (6 credits) |  |  |
| EDS 713 | Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Adolescents with Disabilities in Inclusive Settings | 3 |
| EDS 716 | Practicum in Curriculum\&Instruction for Culturally\&Linguistically Diverse | 3 |

Adolescents w/disabilities
Special Education 7-12 Advanced Certificate Program Prior to Fall 2019

For previous bulletins click here

## Online Gifted and Talented Certificate Extension

A 12-credit Extension in Teaching Students who are Gifted and Talented is offered online and available to any qualified candidate who already holds a New York State Initial/Professional Certificate as a teacher in Early Childhood (Birth to Grade 2), Childhood (Grades 1-6), or Middle and High School Education (English, Math, Science, or Social Studies Grades 7-12); TESOL (Birth - Grade 12); Literacy Studies; or Special Education.

The program is designed for certified teachers who would want to:

- Add a Gifted Education NYS Certification to their list of credentials;
- Understand the psychology, characteristics, and abilities of gifted students in an inclusive setting; and/or
- Learn instructional strategies for high potential students.

The extension courses focus on the nature and needs of culturally and linguistically diverse gifted and talented students and on best practices for teaching students with these characteristics. Each course requires 10 to 15 hours of observation and fieldwork and candidates' access to a computer and the internet.

| EDS 725 | Nature and Needs of Culturally <br> and Linguistically Diverse Gifted <br> and Talented K-12 Students in | 3 |
| :--- | :--- | ---: |
| EDS 726 | Inclu |  |
|  | Assessment of Culturally and <br> Linguistically Diverse Gifted and <br> Talented K-12 Students in <br> Inclusive a | 3 |
| EDS 727 | Best Practices for Teaching <br> Culturally and Linguistically | 3 |
| EDS 728 | Diverse Gifted and Talented <br> Culturally and Linguistically <br> Diverse Gifted and Talented K- <br> 12 Students in the Home | 3 |

## Early Childhood and Childhood Education

Chair: Nancy Dubetz (Carman Hall, Room CA-B07)<br>Program Coordinators: Anne Marie Marshall (Childhood); Cecilia Espinosa (Early Childhood)

Department Faculty: Professors: Nancy Dubetz, Anne Rothstein; Associate Professors: Cecilia Espinosa, Zoila Morell, Frances Rofrano, Alexandria Lawrence Ross, Andrea Zakin; Assistant Professors: Jennifer Collett, Anne Marie Marshall, Yasmin Morales-Alexander, Celestial WillsJackson; Lecturers: Kym Vanderbilt, Michele Washington; Undergraduate Program Coordinators: Anne Marie Marshall (Childhood, Minor to Masters); Michele Washington (Early Childhood, Minor to Masters); Andrea Zakin (Minor)

The Department offers programs in Early Childhood Education and Childhood Education. The Early Childhood and Childhood M.S.Ed. programs serve students who (a) have qualified for initial certification in a related area of teacher education as undergraduates and are interested in dual certification with early childhood education or childhood education at the professional level (advanced degree), or (b) have 12 or fewer undergraduate credits in teacher education and are interested in initial and professional certification in early childhood education or childhood education, or (c) undergraduate Lehman College students accepted into the Minor to Masters Sequence in early childhood or childhood education.

Applicants for this degree include:
Curriculum: Sequence 1 (36-39 credits): M.S.Ed. in Early Childhood or Childhood Education for students who already possess New York State certification

Curriculum: Sequence 2 (39-42 credits): M.S.Ed. in Early Childhood or Childhood Education leading to Bilingual Extension for students who already possess New York State certification

Curriculum: Sequence 3 (42 credits): M.S.Ed. in Early Childhood or Childhood Education leading to initial New York State Certification in Early Childhood or Childhood Education (grades 1-6)

Curriculum: Sequence 4 (42-48 credits): M.S.Ed. in Early Childhood or Childhood Education leading to initial New York State Certification in Early Childhood or Childhood Education (grades 1-6) and Bilingual Extension

Curriculum: Sequence 5 ( 30 credits): M.S.Ed. in Early Childhood or Childhood Education leading to initial New York State Certification in Early Childhood or Childhood Education (grades 1-6) for Minor to Masters Lehman College students.

Curriculum: Sequence 6 ( 30 credits): M.S.Ed. in Early Childhood or Childhood Education leading to initial New York State Certification in Early Childhood or Childhood Education (grades 1-6) and Bilingual Extension for Minor to Masters Lehman College students.

The work of the Department is guided by a conceptual framework referred to as LUTE (Lehman Urban

Transformative Education), which expresses the Department's commitment to developing competent, caring, and qualified educators for the nation's urban schools. Lehman gives teachers a focus on philosophy, trends, curriculum, methods, materials, and research in the field. The bilingual extension option adds the possibility of initial certification with an emphasis on the bilingual/bicultural child.

Courses of study in Early Childhood Education and Childhood Education provide an educational model based on child development and child study principles, New York State Education Department standards and core curriculum, and Council for Accreditation of Educator Preparation (CAEP) standards as described by the National Association for the Education of Young Children (NAEYC) and Association for Childhood Education International (ACEI).

## Early Childhood Education Programs

## Early Childhood Education Entrance Requirements

- A bachelor's degree or equivalent from an accredited college or university with a Grade Point Average of 3.0 for all undergraduate and graduate work completed prior to acceptance.
- Two letters of recommendation.
- An essay outlining career goals ( 500 words).
- An interview might be scheduled upon faculty request.
- Students interested in the Bilingual Extension certificate, please submit an essay in Spanish outlining career goals.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level.


## Early Childhood Education Degree Requirements

To qualify for the M.S.Ed. degree in Early Childhood Education (Birth-Grade 2), students must fulfill the following requirements:

1. Submit scores on the edTPA, Educating ALL Students Test (EAS), and Revised Content Specialty Tests (CST).
2. Complete 39-42 credits of prescribed coursework.
3. Submit professional portfolio.
4. Complete and submit a satisfactory culminating project.
5. Apply for initial or professional certification.

To qualify for a M.S. Ed. in Early Childhood Education/Integration of Bilingual Extension (Birth - Grade 2), students must fulfill the following requirements:

1. Submit scores on the EdTPA, Educating ALL Students Test (EAS), and Revised Content Specialty Tests (CST)
2. 45-48 credits of prescribed course work.
3. Submit professional portfolio.
4. Complete and submit a satisfactory culminating project.
5. Apply for initial or professional certification by completing the requirements for a Bilingual Extension: EDC 738, EDC 739, EDC 727, and EDC 709 or EBS 701
6. Pass Bilingual Education Assessment (BEA).

Students must consult with an advisor in the Early Graduate Childhood program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an advisor in the Early Childhood Education program. All students will complete the curriculum corresponding to one of the sequences below: 3639 credits (Sequence 1); 39-42 credits (Sequence 2); 42 credits (Sequence 3); 42-45 credits (Sequence 4); 30 credits (Sequence 5); 30 credits (Sequence 6). All courses must be selected in consultation with, and with the approval of, an advisor in Early Childhood Education.

## Curriculum: Sequence 1 (36-39 credits):

M.S.Ed. in Early Childhood for students who already possess New York State certification.
The 36-39 credit curriculum for Sequence 1 consists of three instructional areas.

| Foundations (15 credits): |  |  |
| :---: | :---: | :---: |
| EDC 721 | Child Study and Developmental Assessment, Birth to Grade 2 | 3 |
| EDC 722 | Child Development and Program Design in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 735 | Family, School, and Community Interaction in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDS 702 | The Young Child with Special Needs | 3 |
| EBS 701 | Issues in Bilingualism Or | 3 |
| EDC 709 | Multilingualism in the Classroom, Birth to Grade Six | 3 |
| Methods Courses (18 credits): |  |  |
| EDC 713 | Literacy Development in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 714 | Social Studies Concept <br> Development in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 715 | Mathematical Concept Formation in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 716 | Developing Young Children's Concepts in Art, Birth to Grade 2 | 3 |
| EDC 717 | Developing Science Concepts in Early Childhood Settings, Birth | 3 |

to Grade 2
EDC 718 Developing Music Appreciation 3 in Early Childhood Settings, Birth to Grade 2

Master's Project (3):
EDC 756
Teacher as Researcher and Writer
Curriculum: Sequence 2 (39-42 credits):
M.S.Ed. in Early Childhood Education leading to Bilingual Extension for students who already possess New York State certification.

## Foundations ( 15 credits):

| EDC 721 | Child Study and Developmental <br> Assessment, Birth to Grade 2 | 3 |
| :--- | :--- | :--- |
| EDC 722 | Child Development and Program <br> Design in Early Childhood | 3 |
| EDC 735 | Settings, Birth to Grade 2 |  |
|  | Family, School, and Community <br> Interaction in Early Childhood | 3 |
| EDS 702 | Settings, Birth to Grade 2 <br> The Young Child with Special | 3 |
| EBS 701 | Needs | Issues in Bilingualism |
| EDC 709 | Or <br> Multilingualism in the Classroom, | 3 |
|  | Birth to Grade Six | 3 |

Methods Courses ( 21 credits):
EDC 738 Literacy in Bilingual/Bicultural 3 Early Childhood Settings, Birth to Grade 2
EDC 739
Social Studies Concept
Development in
Bilingual/Bicultural Early
Childhood Settings, Birth to Grade2
EDC 727 Teaching English as a Second
Language (Pre-K to Grade 6)
EDC 715 Mathematical Concept Formation
in Early Childhood Settings, Birth to Grade 2
EDC 716 Developing Young Children's
Concepts in Art, Birth to Grade 2
EDC 717 Developing Science Concepts in Early Childhood Settings, Birth to Grade 2
EDC $718 \quad$ Developing Music Appreciation in Early Childhood Settings, Birth to Grade 2
Master's Project (3):
EDC 756 Teacher as Researcher and Writer

## Curriculum: Sequence 3 ( 42 credits):

M.S.Ed. in Early Childhood leading to initial New York State Certification in Early Childhood (Birth - grade 2)

| Foundations(15 credits): <br> EDC 721 | Child Study and Developmental <br> Assessment, Birth to Grade 2 | 3 |
| :---: | :--- | :--- |
| EDC 722 | Child Development and Program <br> Design in Early Childhood <br> Settings, Birth to Grade 2 | 3 |
| EDC 735 | Family, School, and Community <br> Interaction in Early Childhood | 3 |
| EDS 702 | Settings, Birth to Grade 2 |  |
| EBS 701 701 | The Young Child with Special <br> Needs | 3 |
| EDS 709 | Issues in Bilingualism <br> Or <br> Multilingualism in the Classroom, <br> Birth to Grade Six | 3 |

Methods Courses ( $\mathbf{1 8}$ credits):

| EDC 713 | Literacy Development in Early <br> Childhood Settings, Birth to <br> EDC 714 <br> Grade 2 |
| :--- | :--- |
| EDC 715 | Social Studies Concept <br> Development in Early Childhood <br> Settings, Birth to Grade 2 <br> Mathematical Concept |
| EDC 716 | Formation in Early Childhood <br> Settings, Birth to Grade 2 |
| EDC 717 | Developing Young Children's <br> Concepts in Art, Birth to Grade 2 <br> Developing Science Concepts in |
| EDC 718 | Early Childhood Settings, Birth <br> to Grade 2 <br> Developing Music Appreciation <br> in Early Childhood Settings, |
| Birth to Grade 2 |  |

Student Teaching Practicum ( 6 credits):
EDC 795 Student Teaching/Intership
Seminar

EDC 790 Supervised Student Teaching:
Pre-K to Grade 2
Or
EDC $784 \quad$ Supervised Student Teaching Internship, Birth to Grade 2
Master's Project (3):

| EDC 756 | Teacher as Researcher and |
| :--- | :--- |
|  | Writer |

Curriculum: Sequence 4 (42-45 credits):
M.S.Ed. in Early Childhood leading to initial New York State Certification in Early Childhood Education (Birth - grade 2) and Bilingual Extension.

| Foundations (15 credits): |  |  |
| :---: | :--- | :---: |
| EDC 721 | Child Study and Developmental <br> Assessment, Birth to Grade 2 | 3 |
| EDC 722 | Child Development and Program <br> Design in Early Childhood <br> Settings, Birth to Grade 2 | 3 |
| EDC 735 | Family, School, and Community <br> Interaction in Early Childhood | 3 |
| EDS 702 | Settings, Birth to Grade 2 <br> The Young Child with Special <br> Needs | 3 |
| EBS 701 | Issues in Bilingualism <br> Or | 3 |
| EDC 709 | Multilingualism in the Classroom, | 3 |
| Birth to Grade Six |  |  |

Methods Courses ( 21 credits):
EDC $738 \quad$ Literacy in Bilingual/Bicultural
Early Childhood Settings, Birth to Grade 2
EDC $739 \quad$ Social Studies Concept
Development in
Bilingual/Bicultural Early
Childhood Settings, Birth to Grade2
EDC 727 Teaching English as a Second 3
Language (Pre-K to Grade 6)
EDC 715 Mathematical Concept Formation 3
in Early Childhood Settings, Birth
to Grade 2
EDC 716 Developing Young Children's 3
Concepts in Art, Birth to Grade 2
EDC 717 Developing Science Concepts in
Early Childhood Settings, Birth to Grade 2
EDC 718 Developing Music Appreciation in Early Childhood Settings, Birth to Grade 2
Student Teaching Practicum ( 6 credits):
EDC 795 Student Teaching/Intership
Seminar

Supervised Student Teaching in 3 Bilingual Settings, Pre-K to Grade
2
Or
EDC $784 \quad$ Supervised Student Teaching

Master's Project (3):

| EDC 756 | Teacher as Researcher and Writer |
| :---: | :---: |
| Curriculum | ence 5 (30 credits): |
| M.S.Ed. in York State for Minor to | hildhood Education leading to init ation in Early Childhood (Birth -g Lehman College students. |
| Foundation | dits): |
| EDS 702 | The Young Child with Special Needs |
| EDS 743 | Behavioral Assessment, Management, and Change |
| Methods C | (15 credits): |
| EDC 713 | Literacy Development in Early Childhood Settings, Birth to Grade 2 |
| EDC 714 | Social Studies Concept Development in Early Childhood Settings, Birth to Grade 2 |
| EDC 715 | Mathematical Concept <br> Formation in Early Childhood Settings, Birth to Grade 2 |
| EDC 717 | Developing Science Concepts in Early Childhood Settings, Birth to Grade 2 |
| EDS 704 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Young Children with |
| Student Te | Practicum (6 credits): |
| EDC 795 | Student Teaching/Intership Seminar |
| EDC 790 | Supervised Student Teaching: <br> Pre-K to Grade 2 <br> Or |
| EDC 784 | Supervised Student Teaching Internship, Birth to Grade 2 |
| Master's Project (3): |  |
| EDC 756 | Teacher as Researcher and Writer |

## Curriculum: Sequence 6 ( $\mathbf{3 0}$ credits):

M.S.Ed. in Early Childhood Education leading to initial New York State Certification in Early Childhood (Birth - grade 2) and Bilingual Extension for Minor to Masters Lehman College students.

| Foundations (6 credits): |  |  |
| :--- | :--- | ---: |
| EDS 702 | The Young Child with Special | 3 |
| EDS 743 | Needs | Behavioral Assessment, <br> Management, and Change |


| Methods Courses (15 credits): |  |  |
| :---: | :---: | :---: |
| EDC 738 | Literacy in Bilingual/Bicultural Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 739 | Social Studies Concept <br> Development in Bilingual/Bicultural Early Childhood Settings, Birth to Grade2 | 3 |
| EDC 715 | Mathematical Concept Formation in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 717 | Developing Science Concepts in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDS 704 | Curriculum and Instructional Practices for Culturally and Linguistically Diverse Young Children with | 3 |
| Student Teaching Practicum (6 credits): |  |  |
| EDC 795 | Student Teaching/Intership Seminar | 3 |
| EDC 790 | Supervised Student Teaching: <br> Pre-K to Grade 2 <br> Or | 3 |
| EDC 781 | Supervised Student Teaching in Bilingual Settings, Pre-K to Grade 2 | 3 |
| Master's Project (3): |  |  |
| EDC 756 | Teacher as Researcher and Writer | 3 |
| In order to be recommended for initial certification in Early Childhood Education (grades Birth - grade 2,) students must: |  |  |
| A complete the master's degree (Sequences 1, 2, 3, 4,5, or 6) with a cumulative index of 3.0 or better; |  |  |
| B present passing scores on the following New York State examinations: Educating All Students (EAS) test, Teacher Performance Assessment (edTPA), and Content Specialty Test (CST) Multi-Subject. Additionally, students seeking a bilingual extension must also submit passing scores on the Bilingual Education Assessment (BEA); |  |  |
| C complete the mandatory training in child abuse identification and reporting, violence prevention, and DASA; and |  |  |
| D demonstrate successful completion of a liberal arts and sciences core specific to teachers. Please see advisor for more information. |  |  |
| Early Childhood Education Birth-Grade 2 (39-42 credits) |  |  |
| Overview |  |  |

Students in both Early Childhood Education programs must complete courses in three competency areas, including student teaching. To progress from one competency area to the next, candidates must meet continuation requirements as listed below.

## Early Childhood Education Birth-Grade 2 (39-42 credits)

39 credits for students with initial or provisional certification in Pre-K-Grade 6 or Childhood Education.

42 credits for students without prior teacher certification.

| COMPETENCY AREA I: Foundations in Early |  |  |
| :---: | :---: | :---: |
| Childhood Development and Education (15 credits): |  |  |
| EDC 721 | Child Study and Developmental Assessment, Birth to Grade 2 |  |
| EDC 722 | Child Development and Program Design in Early Childhood Settings, Birth to Grade 2 |  |
| EDS 702 | The Young Child with Special Needs |  |
| EDC 734 | Programs and Environments for Infants and Toddler, Birth to 3 Years Or |  |
|  | Elective |  |
| EDC 735 | Family, School, and Community Interaction in Early Childhood Settings, Birth to Grade 2 |  |
| Fulfill requirements for continuation: (1) Complete first 6 credits with a 3.0 G.P.A. (2) Submit academic portfolio for each course of the first 6-12 credits. |  |  |
| COMPETENCY AREA II: Professional Coursework in |  |  |
|  |  |  |
| EDC 713 | Literacy Development in Early Childhood Settings, Birth to Grade 2 |  |
| EDC 714 | Social Studies Concept Development in Early Childhood Settings, Birth to Grade 2 |  |
| EDC 715 | Mathematical Concept Formation in Early Childhood Settings, Birth to Grade 2 |  |
| EDC 716 | Developing Young Children's Concepts in Art, Birth to Grade 2 |  |
| EDC 717 | Developing Science Concepts in Early Childhood Settings, Birth to Grade 2 | 3 |
| EDC 718 | Developing Music Appreciation in Early Childhood Settings, Birth to Grade 2 | 3 |

Fulfill requirements for entry into student teaching: (1)
Successful application to the Student Teaching Coordinator.
(2) Complete at least 12 credits in Competency Area II.

| Student Teaching and Seminar (6 credits): |  |
| :--- | :--- |
| EDC 795 | Student Teaching/Intership |
|  | Seminar |
| EDC 790 | Supervised Student Teaching: |
|  | Pre-K to Grade 2 |


| Student Teaching Internship and Seminar (6 credits): |  |  |
| :---: | :--- | :--- |
| EDC 784 | Supervised Student Teaching | 3 |
|  | Internship, Birth to Grade 2 |  |
| EDC 795 | Student Teaching/Intership | 3 |
|  | Seminar |  |
| EDC 745 | Teaching Internship and Seminar I | 1 |
| EDC 746 | Teaching Internship and Seminar | 1 |
|  | II |  |
| EDC 748 | Teaching Internship and Seminar | 2 |
|  | IV |  |
| EDC 749 | Teaching Internship and Seminar | 2 |
|  | V |  |

Or
EDC 747 Teaching Internship and Seminar 2
III
Teaching Internship and Seminar 2
IV
Teaching Internship and Seminar 2
V

Or
EDC 758 Intensive Teaching Internship and 3 Seminar I
EDC 759 Intensive Teaching Internship and 3 Seminar II

Fulfill requirements for continuation: (1) Successful completion of student teaching or internship. (2) Submit an academic portfolio for each course of the first 36-39 credits, with evidence of achieved outcomes. (3) Apply for Initial or Professional Certification.

| COMPETENCY AREA III: Professional Practice in Early |  |  |
| :---: | :--- | :---: |
| Childhood Education (3-6 credits): |  |  |
| EDC 756 | Teacher as Researcher and Writer | 3 |
| EDC 757 | Ethics and Professionalism in | 3 |
|  | Early Childhood Teaching |  |

EDC 757: Only for certified students.
Early Childhood Education: Integration of Bilingual Extension, Birth-Grade 2 (45-48 credits)

The Bilingual Extension of the Initial or Professional Certificate enables one to teach bilingual students. The requirements for the Initial or Professional Certificates must
be fulfilled before a Bilingual Extension can be issued. In addition, the Bilingual Education Assessment (BEA) exam is required.

| COMPETENCY AREA I: Foundations in Early |  |
| :---: | :---: |
| Childhood Development and Education ( 18 credits): |  |
| EDC 721 | Child Study and Developmental Assessment, Birth to Grade 2 |
| EDC 722 | Child Development and Program Design in Early Childhood Settings, Birth to Grade 2 |
| EDS 702 | The Young Child with Special Needs |
| EDC 709 | Multilingualism in the Classroom, Birth to Grade Six Or |
| EBS 701 | Issues in Bilingualism |
| EDC 734 | Programs and Environments for Infants and Toddler, Birth to 3 Years |
|  | Or <br> Elective |
| EDC 735 | Family, School, and Community Interaction in Early Childhood Settings, Birth to Grade 2 |

Fulfill requirements for continuation: (1) Complete first 6 credits with a 3.0 GPA (2) Submit academic portfolio for each course of the first 6-12 credits.
COMPETENCY AREA II: Professional Coursework in Early Childhood Development and Education (21 credits):
EDC 738 Literacy in Bilingual/Bicultural 3

Early Childhood Settings, Birth to
Grade 2
EDC 739
Social Studies Concept
Development in
Bilingual/Bicultural Early
Childhood Settings, Birth to
Grade2
EDC 727 Teaching English as a Second
Language (Pre-K to Grade 6)
EDC 715 Mathematical Concept Formation
in Early Childhood Settings, Birth to Grade 2
EDC 716

EDC 717

EDC 718
Developing Young Children's
Concepts in Art, Birth to Grade 2
Developing Science Concepts in
Early Childhood Settings, Birth to
Grade 2
Developing Music Appreciation in Early Childhood Settings, Birth to Grade 2

Fulfill requirements for entry into student teaching: (1)
Successful application to Student Teaching Coordinator. (2) Complete at least 15 credits in Competency Area II.

## Student Teaching and Seminar ( 6 credits):

EDC 795 Student Teaching/Intership
Seminar

EDC 781 Supervised Student Teaching in 3
Bilingual Settings, Pre-K to Grade
2
Or
EDC 790 Supervised Student Teaching: 3
Pre-K to Grade 2
Student Teaching Internship and Seminar:

| EDC 795 | Student Teaching/Intership | 3 |
| :--- | :--- | :--- |
|  | Seminar |  |
| EDC 784 | Supervised Student Teaching | 3 |
|  | Internship, Birth to Grade 2 |  |
| EDC 745 | Teaching Internship and Seminar I | 1 |
| EDC 746 | Teaching Internship and Seminar | 1 |
|  | II |  |
| EDC 748 | Teaching Internship and Seminar | 2 |
|  | IV |  |
| EDC 749 | Teaching Internship and Seminar | 2 |
|  | V |  |

V

Or
EDC $747 \quad$ Teaching Internship and Seminar 2
III
EDC 748 Teaching Internship and Seminar 2
IV
EDC 749 Teaching Internship and Seminar 2
V

Or
EDC $758 \quad$ Intensive Teaching Internship and
Seminar I
EDC $759 \quad$ Intensive Teaching Internship and

Fulfill requirements for continuation: (1) Successfully complete student teaching. (2) Submit an academic portfolio for each course of the first 45 credits, with evidence of achieved outcomes. (3) Apply for Initial or Professional Certification.

COMPETENCY AREA III: Professional Practice in Early Childhood Education (3-6 credits):
EDC 756 Teacher as Researcher and Writer 3

EDC 757 Ethics and Professionalism in 3
Early Childhood Teaching
EDC 757: Only for certified students.

## Childhood Education Programs

## Childhood Education Entrance Requirements

- A bachelor's degree or equivalent from an accredited college or university with a GPA of 3.0 for all undergraduate and graduate work completed prior to acceptance.
- Two letters of recommendation.
- An interview might be scheduled by faculty request. (Requirements and procedures are available in the Department office, Carman Hall, Room B-32.)
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level.


## Childhood Education Degree Requirements

To qualify for the M.S. degree in Childhood Education (Grades 1-6), students must fulfill the following requirements: (1) Submit scores on Educating All Students Test (EAS), and Content Specialty Test (CST). (2) Complete 30-42 credits of prescribed course work. (3) Submit professional portfolio. (4) Submit and pass edTPA. (5) Submit application for Initial or Professional Certification.
To qualify for the M.S. in Childhood Education-Integration of Bilingual Extension (Grades 1-6), students must fulfill the following requirements: (1) Submit scores on Educating All Students Test (EAS), and Content Specialty Test (CST). (2) Complete 30-45 credits of prescribed coursework. (3) Submit professional portfolio. (4) Submit and pass edTPA. (5) Apply for initial or professional certification by completing requirements for a Bilingual Extension: EDE 738, EDE 739, EDE 727, and EBS 701 or EDE 709. (6) Pass the Bilingual Extension Assessment (BEA).
Students must consult with an advisor in the Graduate Childhood program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an advisor in the Childhood Education program. All students will complete the curriculum corresponding to one of the sequences below: 36 credits (Sequence 1); 39 credits (Sequence 2); 42 credits (Sequence 3); 45 credits (Sequence 4); 30 credits (Sequence 5); 30 credits (Sequence 6). All courses must be selected in consultation with, and with the approval of, an advisor in Childhood Education.

## Curriculum: Sequence 1 ( $\mathbf{3 6}$ credits):

M.S.Ed. in Early Childhood for students who already possess New York State certification.

The 36 credit curriculum for Sequence 1 consists of three instructional areas.

## Foundations (12 credits):

| EDE 721 | Child Study and Developmental | 3 |
| :--- | :--- | :--- |
| EDE 722 | Assessment, Grade 1 to 6 | Program Design in Childhood <br> EDE 709 |
| Settings: Grades 1-6 | 3 |  |
| EDS 707 | Multilingualism in the Classroom, <br> Birth to Grade Six | 3 |
|  | The Childhood Student with <br> Disabilities | 3 |

Methods Courses ( 21 credits):
EDE 712 Learning and Teaching Literacy in the Primary Grades
EDE 713 Learning and Teaching Literacy 3 in Childhood Settings II: Literacy in Grades 3 to 6
EDE 714 Learning and Teaching Social 3
Studies in Childhood Settings:Grades 1 to 6
EDE 715 Learning and Teaching
Mathematics in Childhood
Settings: Grades 1 to 6
EDE 716 Learning and Teaching Art in 3 Childhood Settings: Grades 1 to 6

EDE 717 Learning and Teaching Science in Childhood Settings: Grades 1 to 6
EDE $740 \quad$ Studies in the Teaching of Elementary Mathematics, Advanced Course

## Master's Project (3):

EDE 756
Teacher as Researcher
Curriculum: Sequence 2 ( $\mathbf{3 9}$ credits):
M.S.Ed. in Childhood Education leading to Bilingual Extension for students who already possess New York State certification

## Foundations (12 credits):

EDE 721
Child Study and Developmental 3 Assessment, Grade 1 to 6
EDE 722 Program Design in Childhood
Settings: Grades 1-6
EDS 707 The Childhood Student with Disabilities
EBS 701

EDE 709
Issues in Bilingualism
Or
Multilingualism in the Classroom,
Birth to Grade Six
Methods Courses ( 24 credits):
EDE 712 Learning and Teaching Literacy in Childhood Settings I: Literacy in the Primary Grades



| Student Teaching Practicum (6 credits): |  |
| :--- | :--- |
| EDE 783/EDC | Student Teaching Seminar |
| 783/EDE 783 |  |
| EDE 782 |  |
|  | Supervised Student Teaching <br> in Bilingual Classrooms: <br>  <br>  <br>  <br>  <br> Grades 1 to 6 |
| EDE 784 | Or |
|  | Supervised Student Teaching |
| Master's Project (3): |  |
| EDE 756 | Teacher as Researcher |

## Curriculum: Sequence 5 ( $\mathbf{3 0}$ credits):

M.S.Ed. in Childhood Education leading to initial New York State Certification in Childhood Education (grades 1-6) for Minor to Masters Lehman College students.

| Foundations (6 credits): |  |  |
| :---: | :---: | :---: |
| EDS 707 | The Childhood Student with |  |
|  | Disabilities |  |
| EDS 743 | Behavioral Assessment, Management, and Change | 3 |
| Methods Courses (15 credits): |  |  |
| EDE 713 | Learning and Teaching Literacy in Childhood Settings II: Literacy in Grades 3 to 6 | 3 |
| EDE 714 | Learning and Teaching Social Studies in Childhood Settings:Grades 1 to 6 | 3 |
| EDE 740 | Studies in the Teaching of Elementary Mathematics, Advanced Course | 3 |
| EDE 717 | Learning and Teaching Science in Childhood Settings: Grades 1 to 6 | 3 |
| EDS 709 | Curriculum and Instructional <br> Practices for Culturally and <br> Linguistically Diverse Childhood Students | 3 |
| Student Teaching Practicum (6 credits): |  |  |
| $\begin{aligned} & \text { EDE 783/EDC } \\ & 783 / \text { EDE } 783 \end{aligned}$ | Student Teaching Seminar | 3 |
| EDE 784 | Supervised Student Teaching Internship: Grades 1-6 Or | 3 |
| EDE 795 | Supervised Student Teaching: Grades 1 to 6 | 3 |
| Master's Project (3): |  |  |
| EDE 756 | Teacher as Researcher |  |

Curriculum: Sequence 6 ( 30 credits):
M.S.Ed. in Childhood Education leading to initial New York State Certification in Childhood Education (grades 1-6) and Bilingual Extension for Minor to Masters Lehman College students.

| Foundations (6 credits): |  |  |
| :---: | :---: | :---: |
| EDS 707 | The Childhood Student with Disabilities |  |
| EDS 743 | Behavioral Assessment, Management, and Change | 3 |
| Methods Courses (15 credits): |  |  |
| EDE 738 | Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 |  |
| EDE 739 | Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 | 3 |
| EDE 740 | Studies in the Teaching of Elementary Mathematics, Advanced Course | 3 |
| EDE 717 | Learning and Teaching Science in Childhood Settings: Grades 1 to 6 | 3 |
| EDS 709 | Curriculum and Instructional <br> Practices for Culturally and Linguistically Diverse Childhood Students | 3 |
| Student Teaching Practicum (6 credits): |  |  |
| $\begin{aligned} & \text { EDE 783/EDC } \\ & \text { 783/EDE } 783 \end{aligned}$ | Student Teaching Seminar | 3 |
| EDE 782 | Supervised Student Teaching in Bilingual Classrooms: <br> Grades 1 to 6 Or | 3 |
| EDE 784 | Supervised Student Teaching Internship: Grades 1-6 | 3 |
| Master's Project (3): |  |  |
| EDE 756 | Teacher as Researcher |  |

In order to be recommended for initial certification in Childhood Education grades 1-6, students must:
(a) complete the master's degree (Sequences $1,2,3,4,5$, or 6 ) with a cumulative index of 3.0 or better;
(b) present passing scores on the following New York State examinations: Educating All Students (EAS) test, Teacher Performance Assessment (edTPA), and Content Specialty Test (CST) Multi-Subject. Additionally, students seeking a bilingual extension must also submit passing scores on the Bilingual Education Assessment (BEA);
(c) complete the mandatory training in child abuse identification and reporting, violence prevention, and DASA; and
(d) demonstrate successful completion of a liberal arts and sciences core specific to teachers. Please see advisor for more information.

## Childhood Education Gifted and Talented Certificate Extension

A 12-credit Extension in Teaching Students who are Gifted and Talented is available to any student who already holds an Initial/Professional Certificate as a Teacher of Early Childhood (Birth to Grade 2), Childhood (Grades 1-6), Middle and High School Academic Subjects (Grades 7-12), TESOL (Birth - Grade 12), Literacy Specialist: Early Childhood (Birth-Grade 2), Literacy Specialist: Childhood (Grades 1-6), Literacy Specialist: Middle Childhood and Adolescent Education (Grades 5-12), Early Childhood Special Education (Birth to Grade 2), Childhood Special Education (Grades 1-6), and Adolescent Special Education in an Academic Subject (Grades 7-12). The extension courses focus on the nature and needs of culturally and linguistically diverse gifted and talented students and on best practices for teaching students with these characteristics.

| EDS 725 | Nature and Needs of Culturally <br> and Linguistically Diverse Gifted <br> and Talented K-12 Students in | 3 |
| :--- | :--- | :--- |
| EDS 726 | Inclu <br> Assessment of Culturally and <br> Linguistically Diverse Gifted and <br> Talented K-12 Students in <br> Inclusive a | 3 |
| EDS 727 | Best Practices for Teaching <br> Culturally and Linguistically <br> Diverse Gifted and Talented <br> Culturally and Linguistically <br> Diverse Gifted and Talented K- <br> 12 Students in the Home | 3 |

Childhood Education Grades 1-6 (30-45 credits)

## Childhood Education Overview

Students in both Childhood Education programs must complete courses in three competency areas, including a supervised teaching experience. To progress from one competency area to the next, candidates must meet continuation requirements as listed below.
Childhood Education Grades 1-6 (30-42 credits)
30 credits for students completing the Minor to Masters Program.
36 credits for students with Initial or Provisional Certification in Pre-K-Grade 6 or Childhood Education.

42 credits for students without prior teacher certification.

## COMPETENCY AREA I: Foundations in Childhood

 Development and Education ( 12 credits):EDS 707

EDE 721

EDE 722

EDE 709
The Childhood Student with Disabilities Child Study and Developmental Assessment, Grade 1 to 6
Program Design in Childhood Settings: Grades 1-6
Settings. Gualitingu in the Birth to Grade Six
Submit academic portfolio for each course of the first 12 credits.

(1) Successful application to the Student Teaching Coordinator.
(2) Complete at least 12 credits in Competency Area II.

| Student Teaching and Seminar (6 credits): |  |  |
| :--- | :--- | :--- |
| EDE 795 | Supervised Student Teaching: | 3 |
|  | Grades 1 to 6 |  |
| EDE 783/EDC | Student Teaching Seminar | 3 |
| $783 /$ EDE 783 |  |  |

OR:
Student Internship and Seminar ( 6 credits):
EDE 783/EDC Student Teaching Seminar
783/EDE 783
EDE 784
Supervised Student Teaching
Internship: Grades 1-6
This requirement does not apply to students with Initial or Provisional Certification.
(1) Successfully complete student teaching or internship.
(2) Submit an academic portfolio for each course of the first 36 credits with evidence of achieved outcomes.
(3) Apply for Initial or Professional Certification.

COMPETENCY AREA III: Professional Practice in Childhood Education (3 credits):
EDE 756 Teacher as Researcher
Childhood Education Integration of Bilingual Extension: Grades 1-6 (30-45 credits)

The Bilingual Extension of the Initial or Professional Certificate enables one to teach bilingual students. The requirements for the Initial or Professional Certificates must be fulfilled before a Bilingual Extension can be issued. In addition, the Bilingual Education Assessment (BEA) exams is required.

30 credits for students completing the Minor to Masters Program.

39 credits for students with Initial or Provisional Certification in Pre-K-Grade 6 or Childhood Education.

45 credits for students without prior teacher certification.

## COMPETENCY AREA I: Foundations in Childhood Development and Education (12 credits):

| EDS 707 | The Childhood Student with <br> Disabilities <br> Child Study and Developmental <br> EDE 721 |
| :--- | :--- |
| EDE 722 | Assessment, Grade 1 to 6 <br> Program Design in Childhood <br> Settings: Grades 1-6 |
| EBS 701 | Issues in Bilingualism |

Submit academic portfolio for each course of the first 9 credits.

| EDE 712 | Learning and Teaching Literacy in Childhood Settings I: Literacy in the Primary Grades |  |
| :---: | :---: | :---: |
| EDE 738 | Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 | 3 |
| EDE 739 | Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 |  |
| EDE 715 | Learning and Teaching <br> Mathematics in Childhood Settings: Grades 1 to 6 | 3 |
| EDE 716 | Learning and Teaching Art in Childhood Settings: Grades 1 to 6 | 3 |
| EDE 717 | Learning and Teaching Science in Childhood Settings: Grades 1 to 6 | 3 |

COMPETENCY AREA II: Professional Coursework in Childhood Development and Education (24 credits): Childhood Settings I: Literacy in the Primary Grades Leand Settings: Grades 1 to 6 Learing and Childhood Settings: Grades 1 to 6 Mathematics in Childhood Settings: Grades 1 to 6
EDE 716 Childhood Settings: Grades 1 to 6 Childhood Settings: Grades 1 to 6

Studies in the Teaching of Elementary Mathematics, Advanced Course
Teaching English as a Second Language (Pre-K to Grade 6)
(1) Successful application to the Student Teaching Coordinator.
(2) Complete at least 12 credits in Competency Area II.

| Student Teaching and Seminar (6 credits): |  |  |
| :--- | :--- | :--- |
| EDE 782 | Supervised Student Teaching |  |
|  | in Bilingual Classrooms: | 3 |
|  | Grades 1 to 6 |  |
| EDE 783/EDC | Student Teaching Seminar | 3 |
| $783 /$ EDE 783 |  |  |

OR:

| Student Internship and Seminar (6 credits): |  |  |
| :--- | :--- | :--- |
| EDE 783/EDC | Student Teaching Seminar | 3 |
| 783/EDE 783 |  |  |
| EDE 784 | Supervised Student Teaching | 3 |
|  | Internship: Grades 1-6 |  |

This requirement does not apply to students, with Initial or Provisional Certification.
(1) Successfully complete student teaching or internship.
(2) Submit an academic portfolio for each course of the first 36 credits, with evidence of achieved outcomes.
(3) Apply for Initial or Professional Certification.

COMPETENCY AREA III: Professional Practice in Childhood Education (3 credits):
EDE 756
Teacher as Researcher

## Earth, Environmental, and Geospatial Sciences

Department Chair: Hari Pant (Gillet Hall, Room 309-A)
Graduate Advisor: Juliana Maantay (Gillet Hall, Room 325)
Department Faculty: Professors: Irene Leung, Juliana
Maantay; Associate Professors: Yuri Gorokhovich, Elia Machado, Hari K. Pant, Heather Sloan; Senior College Laboratory Technician: Brian Morgan

The Department of Earth, Environmental, and Geospatial Sciences offers courses designed to meet the needs of students in the programs in Elementary Education and Secondary School Education, Social Studies (Geography), and Earth Science and General Science (Geology and Weather and Climate).

The EEGS Department also offers a Master's of Science in Geographic Information Science (MS-GISc) and an Advanced Certificate in GISc.

The MS-GISc Program leads to a Master's of Science in GISc, and requires 40 credits of coursework. The program is intended to prepare students to meet the demands and challenges of theoretical and applied research, planning, and management careers in the field of geospatial sciences and the affiliated disciplines of public health, environmental analysis, conservation and natural resource management, epidemiology, ecology, urban planning, hazard and risk assessment, emergency response, demographics, criminal justice, homeland security, public policy and administration, transportation planning, engineering, international relief organizations, and geomatic technologies.
The curriculum of the MS-GISc program is comprised of three key elements: 4 core courses ( 14 credits), 5-6 electives ( 18 credits), and an 8 -credit capstone research experience, with options for either a traditional Master's Thesis, or a combination of an applied research project and professional experience through an internship, (PEAR option -Professional Experience and Applied Research-PSM) for a total of 40 credits to complete the degree.
The MS-GISc (PEAR Option) is recognized as a Professional Science Master's (PSM) Program by the National PSM Association.
The Advanced Certificate in Geographic Information Science (GISc) consists of 17-20 credits of graduate-level coursework, and builds on the strengths of Lehman's Masters of Science Program in GISc (MS-GISc). This Certificate is designed to attract and prepare professionals in the New York City metropolitan region and beyond who work in the various fields involving spatial information, such as urban planning, environmental management, public health, engineering, and sustainable development, for new or augmented careers incorporating GISc. It is intended to give the students the opportunity to develop or upgrade their skills and knowledge of GISc especially as applied to their particular fields. The GISc Certificate Program courses also can be applied toward the MS-GISc graduate degree if the courses comply with the College's transfer of credit or change of degree policies.
Doctoral Program Participation - The Department of Earth, Environmental, and Geospatial Sciences (EEGS) participates in the Earth and Environmental Sciences doctoral program and the Public Health doctoral program of the Graduate School and University Center of The City University of New York. A description of these programs, including admission requirements, may be found in the Bulletin of The Graduate School of The City University of New York. The CUNY Graduate Center offers courses and research training leading to the Ph.D. degree in Earth and Environmental Sciences, and the DPH in Public Health. The EEGS Department offers doctoral level courses in these programs taught at Lehman College, through the CUNY Graduate Center. Students in

CUNY Doctoral Programs may obtain the Advanced Certificate in GISc as an "en route" diploma to the doctoral degree.

## Geographic Information Science (GISc) Master of Science

## MS-GISc Program Description:

The MS-GISc program leads to a Master's of Science in GISc, and requires 40 credits of coursework. The curriculum of the MS-GISc program is comprised of three key elements: 4 core courses ( 14 credits), $5-6$ electives ( 18 credits), and an 8 -credit capstone research experience, with options for either a traditional Master's Thesis, or a combination of an applied research project and professional experience through an internship, (PEAR option -Professional Experience and Applied Research-PSM) for a total of 40 credits to complete the degree.

## MS-GISc Degree Requirements:

## Required Core Courses ( 14 credits):

GEP 505
Principles of Geographic Information Science
GEP 621 Principles and Applications in Remote Sensing
GEP 630 Geostatistics and Spatial Analytical Concepts
GEP 605 Special Topics in Geographic Information Systems
Electives ( 18 credits) to be selected amongst the following:
GEP 602 Biogeography and GISc 4
GEP 606 Raster Analysis 3
GEP 610 Spatial Analysis of Urban Health 3
GEP 620 Demography and Population 3
GEP 631 Advanced Remote Sensing 4
GEP 632 Environmental Health and 3
Geographic Information Sciences (GISc)
GEP 635
Natural Hazards and Risk
Analysis with GIS
GEP $640 \quad$ Urban Geography and Geographic

GEP 664
GEP 675
Information Science (GISc)

GEP 641 Digital Image Analysis Topics in Regional Geography and Applied Analysis
GEP 660
Geovisualization and Analytical Cartography
GEP 662 Introduction to Programming for 3

GEP 680

GEP 689

Methods for GIS Analysis Emerging Issues and Methods in Geographic Information Science Methods Seminar in Geographic Information Science (GISc)

Of the 18 elective credits required for the degree, up to 9 credits of courses may be taken in a cognate discipline, with permission of program advisor.
Students in the PEAR Option must take 12 credits of their electives in Professional Skills courses within the department, or in Health Sciences Dept., Environmental Engineering, or other appropriate program, in consultation with their program advisor, and reflecting their future career plans.)

## Capstone Experience Coursework (8 credits):

An 8-credit capstone experience, either the Thesis Option or the Professional Experience and Applied Research (PEAR) Option (PSM).

## Traditional Master's Thesis Option:

 GEP 695 Thesis Research in GISc
## PEAR Option (PSM):

GEP $690 \quad$ Workshop in Geographic Information Science (GISc) Research
And
GEP 670
Seminar and Internship Program in Geography

## Professional Science Master's (PSM)

The MS-GISc Program at Lehman has been officially recognized as a Professional Science Master's (PSM) by the National PSM Association (NPSMA). The NPSMA describes PSM programs as follows: "The Professional Science Master's (PSM) is an innovative, new graduate degree designed to allow students to pursue advanced training in science or mathematics, while simultaneously developing workplace skills highly valued by employers. PSM programs consist of two years of academic training in an emerging or interdisciplinary area, along with a professional component that may include internships and "cross-training" in workplace skills, such as business, communications, and regulatory affairs. All have been developed in concert with employers and are designed to dovetail into present and future professional career opportunities." (from http://www.sciencemasters.com/)

Completion of the PEAR Option of the MS-GISc fulfills the requirements for the PSM.

## Geographic Information Science (GISc) Advanced Certificate

The Advanced Certificate in Geographic Information Science (GISc) consists of 17-20 credits of graduate-level coursework, and builds on the strengths of Lehman's Masters of Science Program in GISc (MS-GISc). This Certificate is designed to attract and prepare professionals in the New York City metropolitan region and beyond who work in the various fields involving spatial information, such as urban planning, environmental management, public health, engineering, and sustainable development, for new or augmented careers incorporating GISc. It is intended to give the students the opportunity to develop or upgrade their skills and knowledge of GISc especially as applied to their particular fields. The GISc Certificate Program courses also can be applied toward the MS-GISc graduate degree if the courses comply with the College's transfer of credit or change of degree policies.

The admission requirements for the Advanced GISc Certificate are as follows:

- a minimum of 3.0 GPA in previous coursework at the postsecondary level;
- submission of all undergraduate and/or graduate transcripts;
- submission of academic or professional letters of recommendation (two minimum);
- a current CV; and
- a personal essay or statement about your interest in GISc and the MS-GISc Program at Lehman College.


## Two Required Courses (8 Credits)

GEP 605 Special Topics in Geographic Information Systems
GEP 690 Workshop in Geographic 3-4 Information Science (GISc) Research

## 9-12 Credits to be chosen from the following elective

 courses:GEP 504 Basic Mapping Applications and 3
GEP 505 Principles of Geographic 3 Information Science Biogeography and GISc 4
Raster Analysis 3
Spatial Analysis of Urban Health 3
Demography and Population 3
Geography with GISc
Principles and Applications in
Remote Sensing
Geostatistics and Spatial
Analytical Concepts
Advanced Remote Sensing


## Economics and Business

Department Chair: Dene Hurley (Carman Hall, Room 375)
Department Deputy Chair: Amod Choudhary (Carman Hall, Room 383)
Graduate Director: Linda Tauber (Carman Hall, Room 370)
Senior Advisor and Academic Advising Manager: Deirdre Constant

Department Faculty: Professors: Ning Chen, Dene Hurley, Mary Rogan, Chanoch Shreiber; Associate Professors: Jose Cao-Alvira, Amod Choudhary, Juan DelaCruz, Mine Doyran, Vassilios Gargalas, Mario Gonzalez-Corzo, Rossen Petkov; Assistant Professors: Chanil Boo, Jaspal Chatha, Nari Kim, Richard Lahijani, Alexander Nunez-Torres, Nikolaos Papanikolaou, Sean Stein Smith; Lecturers: Shirley Bishop, Papanikolaou, Sean Stein Smith; Lecturers: Shirley Bishop,
Anthony Murrell, Ada Rodriguez, Deborah Sanders, Linda Tauber
The Department offers a Master of Science in Accounting (M.S.A.) and Master of Science in Business (M.S.B.) with specializations in Finance and Human Resources Management. The M.S.A. is designed for students who wish to become professional accountants with Certified Public Accountant (CPA) credentials. The M.S.A./C.P.A. program is registered with the New York State Education Department.
(Other courses may be substituted with department permission.) assilios Gargalas, Mario Gonzalez-Corzo, Rossen Petkov, -

## Accounting, M.S. Program

Students can earn a Master of Science Degree in Accounting (M.S.A.) whether or not their undergraduate degree was in that field. Those with a B.S. in Accounting from Lehman College or an equivalent undergraduate accounting degree from an accredited institution can earn an M.S.A. degree by completing a total of 30 graduate credits. Students holding undergraduate degrees in a field other than accounting or accounting degrees not equivalent to Lehman's B.S. in Accounting may have to take up to 60 credits in Accounting and Business courses in addition to the 30 -credit M.S.A. course requirements. Students in the M.S.A. program must maintain a minimum GPA of 3.0.
Students who complete this program and earn their degree in Accounting will have completed all of the educational requirements for taking the CPA examination in New York State.

## Admission to the Program:

To be fully admitted to the M.S.A. program, applicants must have earned a minimum GPA of 3.0 (B) and have completed an undergraduate degree in accounting or its equivalent. An equivalent undergraduate degree must include 36 credits in accounting, including Advanced Accounting, Cost Accounting, Taxation, and Auditing, in addition to 27 or 24 credits in business courses depending on whether they have completed ACC 348: Accounting Using Computer Systems or its equivalent. The 27-credit business courses are listed below with Lehman College courses fulfilling the business courses requirement shown in parentheses:

## 6 credits in Law:

BBA 336
Business Law I
BBA 337 Business Law II 3
BBA 339 Commercial Transactions 3
BBA 340 Internet Law

## 6 credits in Economics:

| ECO 166 | Introduction to Macroeconomics | 3 |
| :--- | :--- | :--- |
| ECO 167 | Introduction to Microeconomics | 3 |
| BBA 168 | Macroeconomic Foundations of | 3 |
|  | Business |  |
| BBA 169 | Microeconomic Foundations of | 3 |
|  | Business |  |

## 6 credits in Finance:

| BBA 207/BBA | Principles of Finance | 3 |
| :--- | :--- | :--- |
| 207/BBA 307 |  |  |
| BBA 308/BBA | Corporation Finance | 3 |
| 308/ECO |  |  |
| 312/SOC 312 |  |  |
| BBA 310 | Security and Investment | 3 |
|  | Analysis |  |


| 6 credits in Quantitative Methods: |  |  |
| :---: | :--- | :--- |
| BBA 303 | Business Statistics I | 3 |
| BBA 403 | Intermediate Business Statistics | 3 |
|  | II |  |
| BBA 405 | Management Decision Making | 3 |
| ECO 302 | Economic Statistics | 3 |
| ECO 402 | Econometrics | 4 |

## 3 credits in Computer Science:

(Not required if ACC 348 was included among the 36 accounting credits)
Students must also submit a statement of career objectives, two letters of recommendation, and if conditionally admitted, satisfy the specified conditions within one year. GMAT is optional in support of application.
International Students must additionally obtain a minimum total score of 500 or equivalent on the TOEFL and comply with the applicable financial and visa requirements. International students who have earned their baccalaureate from a college or university in which the language of instruction was exclusively in English are exempted from the TOEFL requirement.

Admission Requirements for Non-Matriculated Students: Individuals who do not wish to enroll in the MSA degree program yet want to take graduate courses in accounting may do so provided that they meet all the admission requirements for matriculated students.

Academic Excellence Fees for the Master of Science in Accounting are as follows: $\$ 65.00$ per credit up to a maximum of $\$ 325.00$ per semester.

## Degree Requirements:

The course requirements for the 30 -credit M.S.A. degree are as follows:

## 24 Credits in Core Courses:

ACC 709 Advanced Accounting Theory 3
ACC 719 Advanced Auditing 3
ACC $750 \quad$ Advanced Taxation 3
ACC $790 \quad$ Graduate Seminar in Accounting 3
MSB $701 \quad$ Quantitative Analysis for 3
Managers
MSB 702
Economic Analysis for Managers
MSB 703 Computer-Based Information Systems for Managers
MSB 710 Investment Analysis

## 6 Credits in Electives from the following:

ACC $724 \quad$ Accounting for the S.E.C
ACC 751 Estate and Gift Taxation
ACC 785 Independent Graduate Study in 3

| MSB 711 | Capital Budgeting | 3 |
| :--- | :--- | :--- |
| MSB 712 | Financial Statements Analysis | 3 |
| MSB 713 | International Financial | 3 |
|  | Management |  |

## Business, M.S. Program

Lehman College has established a graduate program leading to the degree of Master of Science in Business (MSB) with a specialization in finance, human resource management, international business, marketing, or e-business. The objective of this curriculum is to satisfy the growing need in today's business environment for professionals who have developed the necessary expertise, insight, and vision in tackling the technical, interpersonal, and conceptual problems specific to their chosen managerial subfield. The program also constitutes a threshold into higher academic or professional pursuits, such as earning a doctorate in business or law.

Students wishing to do so may complete the degree program entirely online by taking online courses only. The online-only option is not available to students studying on an F1 Visa.

## Admission to the Program:

Applicants to the MSB program must have earned their bachelor's degree from an accredited undergraduate institution in the U.S. or abroad with a minimum grade point average of 3.0 (B) or equivalent.

They must have completed:

- 6 credits in Accounting;
- 6 credits in Economics; and
- 6 credits in Mathematics (MAT 132 or 171 or 172 or 174 or 175 or equivalent) and/or Statistics (BBA 403 or equivalent)
If conditionally admitted, applicants must satisfy the specified conditions within one year.

Applicants must submit a statement of career objectives, and two letters of recommendation. GMAT is optional in support of application. A minimum GPA of $\mathrm{B}(3.0)$ is necessary to maintain enrollment in the MS program in business.
International Students must additionally obtain a minimum total score of 500 or equivalent on the TOEFL and comply with the applicable financial and visa requirements. Those who have earned their baccalaureate from a college or university in which the language of instruction was exclusively English are exempted from the TOEFL requirement.
Curriculum: The 30-credit curriculum includes 12 credits in a common professional core, 12 credits in the chosen field of specialization, and 6 credits in two capstone seminar. Fulltime students can complete their degree requirements within
one year by taking the eight core and specialization courses in two consecutive semesters, Fall and Spring, and the two capstone seminars in the summer, one in each of the two summer sessions, but not both seminars in the same summer session.

Academic Excellence Fees for the Master of Science in Business are as follows: $\$ 65.00$ per credit up to a maximum of \$325.00 per semester.

Course Requirements for the MSB degree are as follows:

| Core Courses Requirement: $\mathbf{1 2}$ credits |  |  |
| :--- | :--- | :--- |
| MSB 700 | Organizational Behavior | 3 |
| MSB 701 | Quantitative Analysis for | 3 |
|  | Managers |  |
| MSB 702 | Economic Analysis for Managers | 3 |
| MSB 703 | Computer-Based Information <br>  <br> Major Field Requirement:12 credits <br> Completion of a block of 4 courses in one area of <br> specialization: | 3 |
| Systems for Managers |  |  |


| Finance: |  |  |
| :---: | :---: | :---: |
| MSB 710 | Investment Analysis | 3 |
| MSB 711 | Capital Budgeting | 3 |
| MSB 712 | Financial Statements Analysis | 3 |
| MSB 713 | International Financial Management | 3 |
| Human Resources Management: |  |  |
| MSB 730 | Human Resource Management | 3 |
| MSB 731 | Employee Training and Development | 3 |
| MSB 732 | Managing Group and Interpersonal Dynamics | 3 |
| MSB 734 | International Human Resource Management | 3 |
| International Business: |  |  |
| MSB 720 | Managing in a Global Environment | 3 |
| MSB 713 | International Financial Management | 3 |
| MSB 722 | International Marketing <br> Management: Culture, Law, and Politics | 3 |
| MSB 734 | International Human Resource Management | 3 |
| Marketing: |  |  |
| MSB 720 | Managing in a Global Environment | 3 |
| MSB 721 | Applied Marketing Research | 3 |
| MSB 722 | International Marketing | 3 |



NOTE: Two research-oriented tutorials, MSB 785: Independent Graduate Study in Business and MSB 790: Graduate Research Project in Business, 3 hours, 3 credits each, are available for qualified students intending to acquire a deeper understanding of a selected topic (MSB 785) or to conduct substantive research on a chosen project (MSB 790) upon the approval and under the supervision of a full-time faculty.

## English

Chair: Paula Loscocco (Carman Hall, Room 302B)
Graduate Director: David Hyman (Carman Hall, Room 385)
Department Faculty: Professors: Siraj Ahmed, Allison Amend, Mario DiGangi, Paula Loscocco, Margot Mifflin, Deirdre Pettipiece; Associate Professors: James Anderson, Salita Bryant, William G. Fisher, David Hyman, Tyler T. Schmidt, Jessica Yood; Assistant Professors: Melissa Castillo Planas, Sophia Hsu, Vani Kannan, J. Bret Maney, Olivia Moy; Lecturers: Jane Cleland, Jennifer MacKenzie, Joseph McElligott, Deirdre O'Boy, Dhipinder Walia
The M.A. program in English serves those who wish to expand their understanding of literature or composition, those who wish to prepare themselves for teaching English on the secondary or two-year college level, and those who wish to proceed to the doctorate. Students may choose concentrations in literature or in composition studies.

All students are eligible to take all courses (with whatever prerequisites may be listed). Most courses are "studies in" particular themes, genres, historical periods, or critical approaches; topics may vary and are announced during the
preceding semester, and students may elect the same course twice if the topic is different. All courses must be on the 700 level unless the Program Coordinator permits a 600-level course to be counted toward the number of courses in English required for the degree. Students wishing to count a 600 -level course must submit work written in the course for evaluation by the English Department Graduate Committee. All work for the degree must be completed within four years of matriculation.

Before their first registration, all students are required to plan complete programs with the Program Coordinator, who must approve all courses prior to registration.

Students who have done their major work in English in non-English-speaking countries may be required to offer evidence of having completed additional undergraduate English courses taken in a North American college or university before admission to the graduate program; these may be taken at Lehman College. Such students will be required to attain a score of at least 600 on the TOEFL; candidates with scores of between 580 and 600 may be considered for admission provided they first attend a language institute or otherwise remedy their deficiencies.

Additional information regarding all aspects of the M.A. program in English may be obtained from the Program Coordinator.

## English Master of Arts Program

The Master of Arts Program in English offers the following four concentrations: Literature, Writing and Rhetoric, Creative Writing--Poetry, and Creative Writing--Fiction.

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstration of the potential to pursue graduate study successfully - that is, attainment of a minimum undergraduate Grade Point Average of 3.0 in the undergraduate record as a whole and a 3.0 in English.
- Study of a minimum of 18 credit hours in courses beyond the introductory level in English.
- Submission of scores on the Graduate Record Examination (GRE) General Test.
- Submission of three letters of recommendation, at least two of which must be from a person who can testify to the candidate's ability as a student of literature, writing and rhetoric, or creative writing. (as appropriate).
- Submission of a personal statement of some 500 words indicating as precisely as possible the applicant's preparation for master's work and career plans.
- Submission of a 10-25 page writing sample, depending on concentration. For students applying to the Literature

Concentration, this must be an essay demonstrating critical analysis of a literary text or set of texts. One 12-25 page essay is preferred, but two shorter essays can be submitted in its place (totaling 12-25 pages). For students applying to the Writing \& Rhetoric Concentration, a 12-25 page sample of creative nonfiction can be submitted in place of the critical analysis, although students may choose to submit a critical analysis. Again, one long essay is preferred, but two shorter essays can be submitted in its place (totaling 12-25 pages). For students applying to the Creative Writing / Poetry Concentration, at least 5 poems totaling 10-12 pages should be submitted. For students applying to the Creative Writing / Fiction Concentration, a 12-25-page sample of short fiction or excerpt from a longer work should be submitted. One short story is preferred, but multiple stories can be submitted to fulfill the pagerequirement.

## Degree Requirements

After planning his or her program in advance with the Graduate Program Director, the student must complete a minimum of 30 credits in English with an average of B or better. Students are encouraged to enroll in a full course load ( 9 credits) each semester so that the program can be completed in four semesters.

## I. Concentrations in Literature or Writing and Rhetoric (21 credits)

ENG 700 Introduction to English Studies 3
ENG 702 Introduction Critical Theory 3

ENG 784 Readings in Composition and 3 Rhetoric

Or
ENG $785 \quad$ Seminar in Writing: Practice and Theory

ENG 795 Master's Research 3

## 9 credits in Electives:

Three courses in literary history, language and literature, or writing and rhetoric. One elective may be in creative writing or from outside the Department with the approval of the Graduate Program Director.

## II. Concentration in Literature ( 9 credits)

3 credits in Literature to 1700:

ENG 703

ENG 705

ENG 712
ENG 713
ENG 722
Studies in Old English Language and Literature

Studies in Medieval English
Language and Literature
Studies in the Renaissance
Studies in Shakespeare
Studies in Seventeenth-Century

| English Literature |  |  |
| :---: | :---: | :---: |
| 3 credits in Literature 1700-1900: |  |  |
| ENG 731 | Studies in Eighteenth-Century English Literature | 3 |
| ENG 740 | Studies in Romanticism | 3 |
| ENG 742 | Studies in Nineteenth-Century English Literature | 3 |
| ENG 748 | Studies in American Literature to 1800 | 3 |
| ENG 750 | Studies in Nineteenth-Century American Literature | 3 |
| 3 credits in Literature 1900 to present: |  |  |
| ENG 753 | Studies In Modernism | 3 |
| ENG 755 | Studies in Twentieth-Century English Literature | 3 |
| ENG 756 | Studies in Twentieth-Century American Literature | 3 |
| ENG 757 | Studies in Contemporary Literature | 3 |
| III. Concentrations Writing and Rhetoric Concentration (9 credits) |  |  |
| 3 credits in whichever course was not taken for the core: |  |  |
| ENG 784 | Readings in Composition and Rhetoric | 3 |
| ENG 785 | Seminar in Writing: Practice and Theory | 3 |
| $\mathbf{6}$ credits in Two additional courses in writing/rhetoric: |  |  |
| ENG 783 | Practicum in Teaching College Writing | 3 |
| ENG 788 | Writing and Rhetoric in the Digital Age | 3 |
| ENG 790 | Special Topics in Composition and Rhetoric | 3 |
| ENG 793 | Literacy and Community | 3 |
| IV. Concentration in Creative Writing (18 credits) |  |  |
| ENG 700 | Introduction to English Studies Or | 3 |
| ENG 702 | Introduction Critical Theory | 3 |
| ENG 784 | Readings in Composition and Rhetoric Or | 3 |
| ENG 785 | Seminar in Writing: Practice and Theory | 3 |
| ENG 795 | Master's Research | 3 |

9 credits in Electives:
Three courses in literature
Poetry Concentration (12 credits)

## 6 credits in two workshops:

$$
\text { ENW } 701 \quad \text { Poetry Workshop }
$$

6 credits in two craft courses:

$$
\text { ENW } 711 \quad \text { Forms and Techniques in Poetry }
$$

Fiction Concentration ( 12 credits)
6 credits in two workshops:
ENW 702 Fiction Workshop
6 credits in two craft courses:

ENW 712 | Forms and Techniques in |  |
| :--- | :--- |
|  | Fiction |

## Foreign Language (for all M.A. candidates)

The foreign language requirement emphasizes the relationship between the knowledge of foreign languages and the study of literature and the practice of writing. Early in their studies, students should choose a language relevant to their research and/or to their future professional plans. The requirement may be satisfied by (1) demonstrating the ability to translate lucidly, with a dictionary, a passage from a modern critical text; or by (2) earning a B or better in coursework within the past five years in (a) an intensive language-for-reading course offered through the Language Reading Program at the CUNY Graduate Center or (b) an advanced undergraduate course in literature read in the foreign language. NOTE: The following languages are automatically accepted for meeting this requirement: Arabic, Bengali, Chinese, French, German, Greek, Hebrew, Hindi, Italian, Japanese, Kiswahili, Latin, Russian, Spanish, Urdu, and Yoruba. Students wishing to choose another language must apply to the Department's Graduate Committee for approval.

## Master's Essay (for Concentrations in Literature or

 Writing and Rhetoric)With the completion of 15 credits, a student should begin planning to write his or her Master's Essay, which must be 2535 pages in length and demonstrate original scholarship suitable for publication in a scholarly journal in the field of English. While it may originate in a previous seminar project, the final essay must demonstrate substantive revision and expansion, including new research, as verified by the faculty director. The essay will be read by a faculty advisor and a second reader that is approved by the Graduate Program Director.

The Master's Essay must be researched and written in conjunction with the course in Master's Research (ENG 795), taken with the faculty advisor. It is recommended that a student secure a working relationship with a faculty adviser by the time the student has completed 15 credits, in preparation for ENG 795. Students must also develop an extensive reading list of primary texts and other related literary texts germane to the Master's Essay. The reading list must be approved by the faculty adviser and the Graduate Program

Director, and will be included as part of the oral defense of the Master's Essay.

## Master's Thesis (for Concentrations in Creative Writing)

The student must submit a final creative thesis prepared in Master's Research (ENG 795). It is recommended that a student secure a working relationship with a faculty adviser by the time the student has completed 15 credits.

The thesis must be a book of publishable quality. Poetry candidates should submit a collection or cycle of poems totaling at least 25-35 pages. Fiction candidates should submit a collection of short stories, a novella, or a novel totaling at least 75-125 pages.

## Oral Defense (for all M.A. candidates)

At the completion of ENG 795, the student must defend the Master's Essay or Master's Thesis in a two-hour oral defense conducted by the faculty advisor and the second reader. Two copies of the final essay or thesis, approved by the faculty adviser, must be submitted to the Graduate Program Director one in electronic format and one in print.

## Relation to the CUNY Ph.D. Program

M.A. candidates in the Literature or Writing and Rhetoric Concentrations may conclude their graduate studies with the Master's degree in English or they may decide to pursue doctoral study. The first 25 graduate credits in the Literature or Writing and Rhetoric concentrations at Lehman College may be counted toward the Ph.D. in English at the CUNY Graduate Center.
M.A. candidates in the Creative Writing Concentrations should consult with the Executive Officer of the Ph.D. Program in English at the CUNY Graduate Center to ascertain which credits may be counted toward the Ph.D. in English at the Graduate Center.

The University doctoral program in English is described in the Bulletin of the CUNY Graduate Center. Candidates who are interested in proceeding on to the Ph.D. Program in English at the Graduate Center should apply for admission directly to the Ph.D. program instead of to Lehman College. Inquiries may be addressed to the Executive Officer of the Ph.D. Program, Department of English, City University of New York, 365 Fifth Avenue, New York, NY 10016.

## Graduate Courses

ENG and ENW Courses
English (ENG) Courses (p. 188)
English Writing (ENW) Courses (p. 192)

## The Dr. Alice Griffin Fellowship

Upon completion of 15 credits toward their M.A. in English with a Concentration in Literature, students may apply for the

Dr. Alice Griffin Fellowship. This fellowship is the generous gift of Professor of English Emerita Alice Griffin, an expert in Shakespeare and American Theatre who taught at Lehman College from 1949, when it was still the women's college of Hunter, to her retirement in 1991.

## New York City Writing Project

The following courses are designed for the New York City Writing Project, an affiliate of the National Writing Project, and are offered through the Institute for Literacy Studies. These courses in English are not intended to satisfy New York State teacher-education certification requirements. Summer session courses are generally offered on the Lehman campus; during the academic year, most New York City Writing Project courses are offered in schools. For more information, write or call Marcie Wolfe, Director, New York City Writing Project, Institute for Literacy Studies, Lehman College, Bronx, NY 10468 (718-960-8758).

| ENG 682 | Independent Study | 3 |
| :--- | :--- | ---: |
| ENG 684 | Seminar in Writing: Theory | 3 |
| ENG 685 | Seminar in Writing: Practice | $3-4$ |
| ENG 686 | Special Studies in Language, | 3 |
|  | Literature, and Writing |  |
| ENG 688 | Writing and Learning | 3 |

## Health Sciences

Chair: Danna Ethan (Gillet Hall, Room 431B)
Program Directors: Craig Demmer, Health Education and Promotion Online, M.A. (Gillet Hall, Room 334); Lisa Fusco, Health Pre K-12 Teacher, M.S.Ed., Health Education Adv. Cert. (Gillet Hall, Room 336); Hyangmi Kim, Recreation Education, M.S.Ed. (APEX, Room 267); Lalitha Samuel, Nutrition, M.S. (Gillet Hall, Room 421); Brad Schoenfeld, Human Performance and Fitness, M.S. (APEX, Room 259); Marina Stopler, Dietetic Internship Coordinator (Gillet Hall, Room 432)
Department Faculty: Professors: Craig Demmer, Gul TiryakiSonmez; Associate Professors: Andrea Boyar, Danna Ethan, Chul-Young Roh, Lalitha Samuel, Brad Schoenfeld; Assistant Professors: Katherine Burt, Charles Cange, Ileana Carillo, Jacob Eubank, Andrew Kim, Hyangmi Kim; Lecturers: Lisa Fusco, Marina Stopler; Instructors: Emilie Adams, Andrew Alto; Sub-Lecturers: Tailisha Gonzalez, Kezia Hercules, Amy White

The Department of Health Sciences offers five graduate degree programs: the M.S.Ed. Program, Health N-12 Teacher; the M.A. Program in Health Education and Promotion; the M.S. Program in Human Performance and Fitness; the M.S. Program in Nutrition; and the M.S.Ed. Program in Recreation Education.

## Health Pre K-12 Teacher, M.S.Ed. Program

This program is designed for students seeking a master's degree in Teaching Health Education. Graduates of this program are recommended for New York State Initial or Professional Certification in Health Education (Pre K-12). Students are supervised in their fieldwork and student teaching by faculty members of the Health Education program in the Department of Health Sciences. Advisement is provided by the Graduate Program Director and faculty members of the Health Education Program in the Department of Health Sciences and/or the Department of Middle and High School Education.

To be eligible for this Master's Program, potential students must fall into one of the following categories:
Sequence 1 (39 credits). Students who already possess New York State certification in a related area and who seek additional certification in Health Education Pre K-12.
Sequence 2 (30 credits). Students who already possess New York State certification in health education and who seek professional certification in Health Education Pre K-12.

## Admission Requirements

- Possess a Bachelor's degree (or its equivalent) from an accredited college or university.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.
- Demonstrate the ability to successfully pursue graduate study by having attained a minimum cumulative undergraduate grade point average of 3.0 or higher.
- Three letters of recommendation and a Personal Goal Statement.
- For Sequence 1 admission, possess New York State teacher certification in an area other than health education.
- For Sequence 2 admission, possess New York State teacher certification in health education.


## Degree Requirements

Students must consult with the graduate adviser in the health education program before starting their Master's Program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the health education program.

Students must complete one of the two sequences outlined below:
Sequence 1 ( 39 credits):
For students who already possess New York State certification in another subject and who seek certification in

Health Education Pre K-12. Course and credit requirements are as follows:

## Required HEA courses ( 9 credits):

| HEA 602 | Research Methods in Health <br> Education | 3 |
| :--- | :--- | :--- |
| HEA 603 | History and Philosophy of | 3 |
| HEA 620 | Health Education and Promotion | Health Counseling |

HEA electives (12)
Courses linking health with teaching strategies (9):
HEA 671 Teaching Strategies for Health; 3
HEA 672 Teaching Strategies for Health: 3
Health Promotion Behaviors
HEA 673 Teaching: Strategies for Health: 3
Disease and Disability
Special Education (3):
ESC 506
Special Needs Education in TESOL and Secondary Settings Or

EDS $701 \quad$ Understanding Individuals with Disabilities

EDS 701: Or equivalent.

| Student Teaching ( $\mathbf{3}$ credits): |  |  |
| :---: | :--- | ---: |
| ESC 595 | Internship in Classroom | $1-3$ |
|  | Teaching |  |
| ESC 611 | Teaching Internship Seminar in | 1 |
|  | Secondary Education |  |

ESC 595: For in-service teachers.

## Master's Project (3):

ESC 708
Project Seminar in Curriculum,

ESC 708: Culminates in an approved curriculum project
Sequence 2 ( $\mathbf{3 0}$ credits):
For students who already possess New York State certification in health education and who seek professional certification in Health Education Pre K-12. The curriculum consists of 30 graduate credits. Course and credit requirements are as follows:

| Required HEA courses ( $\mathbf{9}$ credits): |  |  |
| :--- | :--- | :--- |
| HEA 602 | Research Methods in Health <br> Education | 3 |
| HEA 603 | History and Philosophy of | 3 |
| HEA 620 | Health Education and Promotion |  |
|  | Health Counseling |  |

Health electives (3)
Courses linking health with teaching strategies (9):

| HEA 671 | Teaching Strategies for Health; Psychosocial Wellness |
| :---: | :---: |
| HEA 672 | Teaching Strategies for Health: Health Promotion Behaviors |
| HEA 673 | Teaching: Strategies for Health: Disease and Disability |
| Special Education (3): |  |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings Or |
| EDS 701 | Understanding Individuals with Disabilities |
| EDS 701: Or equivalent. |  |
| Student Teaching (3 credits): |  |
| ESC 595 | Internship in Classroom Teaching |
| ESC 611 | Teaching Internship Seminar in Secondary Education |
| ESC 595: For in-service teachers. |  |
| Master's Project (3): |  |
| ESC 708 | Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas |
| Culminates For more in Dr. Lisa Fu lisa.fusco@ | proved curriculum project n please contact <br> cuny.edu |

## Health Education and Promotion M.A. Program

The M.A in Health Education and Promotion is a 33 -credit graduate degree that provides advanced academic training for individuals employed or planning to seek employment as health educators in academic, clinical, community, and corporate settings. This program prepares students to meet the expanding need for health education professionals capable of working with the community in a variety of public, private, and professional settings. Graduates of the program may also find career opportunities as health advocates, program planners and evaluators, case managers, policy analysts and health administrators. This degree may also be suitable for individuals such as nurses, social workers, physician assistants or allied health personnel who wish to enhance their qualifications. Upon completion of the degree, students are eligible to sit for the CHES (Certified Health Education Specialist) or MCHES exam (Master Certified Health Education Specialist), a national credential awarded by the National Commission for Health Education Credentialing.
Students also may complete the degree program entirely online by taking online courses only. The online-only option is not available to students studying on an F1 Visa.

## Admission Requirements

To be considered for admission to the M.A. in Health Education and Promotion, an applicant must:

1. Possess a bachelor's degree from an accredited university.
2. Have completed an approved program of study with a minimum average of approximately B (3.0) in the major and B- (2.7) overall.
3. Submit three letters of recommendation (including one from a professor from your undergraduate degree program).
4. Submit a personal goal statement.

## Degree Requirements

The curriculum consists of 33 graduate credits and a comprehensive examination. Course and credit requirements are as follows:

| In required HEA courses (21): |  |  |
| :---: | :--- | :---: |
| HEA 602 | Research Methods in Health <br> Education | 3 |
| HEA 603 | History and Philosophy of Health <br> Education and Promotion | 3 |
| HEA 620 622 | Health Counseling | 3 |
| HEA 623 | Organization and Administration <br> of Health Education and | 3 |
| HEA 670 | Promotion Programs <br> Program Planning and Evaluation <br> in Health Education | 3 |
| HEA 675 | Field Experience in Health <br> Education | 3 |
|  | Teaching Strategies for <br> Community Health | 3 |

HEA 670: Subject to departmental permission, students currently employed in the field of health education may take an HEA elective in lieu of HEA 670.

## In HEA electives (12)

Students may select from the following elective courses:
HEA 502 Women and Health 3

HEA 507 Human Sexuality 3
HEA 509 Drugs and Substance Abuse 3
HEA $510 \quad$ Health and Aging 3
HEA 511 Perspectives on HIV/AIDS 3
HEA 636 Perspectives on Death and 3
Dying
HEA 640/DFN Nutrition and Chronic Diseases 3
640/HEA 640
HEA 680
Special Topics in Health
Health Education Advanced Certificate Program
Effective: Fall 2019. Students who entered this certificate program beginning in the Fall of 2019 or thereafter must
follow these requirements. Students who entered this program prior to Fall of 2019 follow the requirements that were in effect at the time they began the program. See link below for the most recent Health Education Certificate Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.

This program will be offered to students who already possess a Master's degree and a New York State (NYS) initial or professional certification in any subject area. The Advanced Certificate will enable them to become certified to teach Health Education P-12 in NYS in addition to their base certificate. This program requires 12 credits in Health Education core content and 6 credits in fieldwork through the Student Teaching Internship course.

## Admission Requirements

- Possess a master's degree in a related field.
- Demonstrate the ability to successfully pursue graduate study by having a master's Grade Point Average of 3.0 or better.
- Submit two (2) letters of recommendation and a 500 -word essay on career goals.
- Submit NYS initial or professional certification in any subject area.
- Meet additional Departmental, divisional, and New York State requirements, if any.

Program of Study (Total 18 credits):

## Content Courses (Total of 6 credits):

| HEA 671 | Teaching Strategies for Health; <br> Psychosocial Wellness | 3 |
| :---: | :--- | ---: |
| HEA 507 | Human Sexuality |  |
| Student Teaching | Internship (Total 6 credits): |  |
| ESC 595 | Internship in Classroom | $1-3$ |
| ESC 611 | Teaching <br> Teaching Internship Seminar in | 1 |
| ESC 708 | Secondary Education <br> Project Seminar in Curriculum, <br> Materials, and Assessment in | 3 |
|  | Specialized Areas |  |

ESC 595 is a variable-credit course and must be taken for two credits.

## Elective Courses (Total of 6 credits):

HEA 502
Women and Health
HEA 509
HEA 510
Drugs and Substance Abuse
Health and Aging
HEA 627
Health Problems and Issues in Contemporary Society
HEA 636

Perspectives on Death and Dying

640/HEA 640
HEA 680
HEA 685

HEA 640/DFN Nutrition and Chronic Diseases 3 3

Special Topics in Health
Independent Study in Health 3

For further information please contact:
Dr. Lisa Fusco
Program Director
lisa.fusco@lehman.cuny.edu
Health Education Advanced Certificate Program Prior to Fall 2019

Health Education Advanced Certificate Program Prior to Spring 2019

For previous bulletins click here

## Human Performance and Fitness, M.S. Program

Effective: Fall 2019
Lehman College's M.S. in Human Performance and Fitness Program aims to equip students with the necessary skills and competencies required to function efficiently in the field of exercise science, and physical fitness and wellness. With personal health and fitness occupying much of our nation's attention, a graduate degree that ties together the studies of anatomy, kinesiology, physiology, sports nutrition and other related exercise science disciplines, is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and fitness interventions. In addition, the program utilizes the Human Performance Laboratory, with its state-of-the-art equipment, and the additional resources of the APEX facility, including its fitness and weight training centers.

The program prepares students for careers in corporate and community fitness programs, health clubs, and similar fitnessrelated industries. Although the program does not fulfill teacher certification requirements, it is of particular appeal to public school teachers (primary and secondary) in health and physical education, who are required by New York State to obtain a master's degree for continued employment. Positions in sales or marketing of medical, fitness, sports supplements and sports-related equipment may also be appropriate for students with this degree. In addition, the program prepares students for doctoral programs in areas related to exercise science and to carry out research that advances the emerging body of literature in human health, fitness and performance.

## Admission Requirements

The following admission requirements apply for entry into the program:

[^0]- Demonstration of the potential to pursue graduate study successfully - that is, attainment of a minimum undergraduate Grade Point Average (GPA) of 3.0 in the undergraduate record as a whole and a 3.0 in courses specific to exercise science. Extraordinary circumstances for applicants with a lower GPA will be considered on a case-by-case basis at the discretion of the program director.
- A minimum of 30 credit hours in exercise-related coursework. Those who do not meet these requirements can apply for special circumstances and admission will be considered on case-by-case basis. Viable candidates will be required to take leveling courses at the undergraduate level based on their academic background and then admitted conditionally provided they pass these courses.
- Submission of three letters of recommendation, at least two of which must be from a person directly involved in the field of exercise science, either as a professor, researcher, or practitioner.
- Submission of a personal statement of approximately 500 words indicating as precisely as possible the applicant's preparation for master's work and interest in pursuing a career in the fitness field.


## Degree Requirements

The M.S. in Human Performance and Fitness program offers two options: Thesis or Capstone Project.

| Option 1: Thesis |  |  |
| :---: | :---: | :---: |
| Core Courses (18 Credits) |  |  |
| EXS 501 | Physical Activity, Exercise and Fitness | 3 |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and Prescription | 3 |
| EXS 505 | Advanced Sports Nutrition | 3 |
| EXS 506 | Applied Training Methodologies | 3 |
| Elective Courses (9 Credits) |  |  |
| EXS 615 | Advanced Kinesiology and Biomechanics | 3 |
| EXS 616 | Advanced Motor Learning and Performance | 3 |
| EXS 626 | Fitness Management and Marketing | 3 |
| EXS 665 | Psychology of Sport | 3 |
| EXS 680 | Selected Topics in Exercise Science | 3 |
| Thesis (6 Credits) |  |  |
| EXS 790 | Thesis Workshop 1 | 3 |
| EXS 791 | Thesis Workshop 2 | 3 |

## Option 2: Capstone Project

## Core Courses ( $\mathbf{1 8}$ Credits)

| EXS 501 | Physical Activity, Exercise and <br> Fitness | 3 |
| :--- | :--- | :--- |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in <br> Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and | 3 |
| EXS 505 | Prescription |  |
| EXS 506 | Advanced Sports Nutrition | 3 |
| Applied Training Methodologies | 3 |  |

## Elective Courses 12 Credits

| EXS 615 | Advanced Kinesiology and <br> Biomechanics | 3 |
| :--- | :--- | ---: |
| EXS 616 | Advanced Motor Learning and <br> Performance | 3 |
| EXS 626 | Fitness Management and <br> EXS 665 | Marketing |
| EXsychology of Sport | 3 |  |
|  | Selected Topics in Exercise <br> Science | 3 |
|  | EX0 | 3 |

## Capstone Project (3 Credits)

EXS 795
Capstone Project Workshop

## Nutrition M.S. Program

The Master of Science Program in Nutrition prepares students for a wide range of professional positions in either clinical or community nutrition, and for doctoral study in these fields. Graduates of the program may find career opportunities as clinical nutritionists within health-care settings and as nutrition educators in the community. Those graduating from the Dietetic Internship are eligible to sit for the Registration Examination administered by the Commission on Dietetic Registration (CDR) of the Academy of Nutrition and Dietetics to become Registered Dietitians (RD) or Registered Dietitian Nutritionist (RDN).

## Admission Requirements

- Bachelor's degree or its equivalent from an accredited college or university.
- Demonstrated ability to successfully pursue graduate study by having achieved a minimum grade average of $B$ (3.0) in the undergraduate record as a whole and in courses most relevant to the graduate discipline.
- Two letters of recommendation.
- Must have completed the following courses and credits (or their equivalents):


## In Basic Science:

## Courses in physiology:

Anatomy and Physiology I
And

| BIO 182 | Anatomy and Physiology II Or | 4 |
| :---: | :---: | :---: |
| BIO 228 | Mammalian Physiology | 4 |
| Inorganic chemistry: |  |  |
| CHE 114 | Essentials of General Chemistry Lecture | 3 |
| CHE 115 | Essentials of General Chemistry Laboratory | 1.5 |
| Organic chemistry: |  |  |
| CHE 120 | Essentials of Organic | 3 |
|  | Chemistry Lecture I |  |
| CHE 121 | Essentials of Organic | 1.5 |
|  | Chemistry Laboratory II |  |
| In Nutrition: |  |  |
| Courses in introductory nutrition: |  |  |
| HSD 240 | Nutrition and Health | 3 |
| Advanced nutrition: |  |  |
| DFN 445 | Advanced Nutrition | 4 |
| Diet and disease: |  |  |
| DFN 348 | Nutrition in the Management of Disease | 3 |
| DFN 448 | Nutrition in the Management of Disease II | 3 |
| Foods: |  |  |
| DFN 120 | The Nature and Science of Food | 3 |
| DFN 220 | Foods, Society, and Health | 4 |
| Deficiencies in undergraduate preparation may be rectified through Lehman's undergraduate program in Dietetics, Foods, and Nutrition, which is accredited by the ACEND (Accreditation Council for Education in Nutrition and Dietetics) as a Didactic Program in Dietetics (DPD). https://www.eatrightpro.org/acend/accredited-programs/dietetic-internships. |  |  |
| Degree Requirements |  |  |
| Each candidate must complete an approved program of study of at least 37 credits that includes the general core courses and approved elective courses, which may include the courses required for the Dietetic Internship (DI) program. The student may elect either to write a thesis or pass a comprehensive examination for a minimum total of 37 credits. At this time, only the comprehensive exam is being offered. |  |  |
| Core Courses: |  |  |
| All students are required to take the following courses and credits (total of 25 credits): |  |  |
| HEA 600 | Biostatistics | 3 |
| DFN 637 | Nutrition Counseling | 3 |



Other courses: Selected with permission of the Graduate Adviser (total of a minimum of 12 credits).

DFN 730, DFN 731: A maximum of 9 credits from DFN 730 and DFN 731 may be credited toward the requirements for the MS degree for those students completing the DI program.

## Admission Requirements to Dietetic Internship Program (DI)

Students who wish to enter the DI must be accepted into Lehman's M.S. in Nutrition Program and then submit an additional application to the DI. Places in the DI are limited and therefore admission into the DI is competitive. Students must conform to the admissions policies of the DI as itemized on the web pages of the DI program (http://www.lehman.edu/dietetic-internshipprogram/index.php), which includes the computerized matching program administered through "D \& D Digital Systems."

Included in the DI application are the following:

- The ACEND internship application form.
- Two recommendations on ACEND forms.
- Original undergraduate and/or graduate transcripts.
- ADPD Verification Statement attesting to the completion of ACEND-approved coursework equivalent to the undergraduate program in Dietetics, Foods, and Nutrition.
- One page personal statement.
- Application fee.

Applications must be submitted to the DI Director by February $\mathbf{1 5}$ for entry into the DI class beginning in the Fall semester.

Interns must complete the following four graduate courses: DFN 641, DFN 651, DFN 661, and HEA 620, concurrent with the DI.

## Completion Requirements for Dietetic Internship Program

In order to sit for the RD examination, students must be admitted to the M.S. in Nutrition program; submit a separate application to the DI; participate in computer matching; be admitted into the DI; complete four corequisite courses; and complete a minimum of 1200 hours of supervised preprofessional practice (DFN 730 for 3 semesters), and attend the Concepts and Methods of Dietetics Practice seminar (DFN 731) for 3 semesters or until the requirements are fulfilled. The DI is completed over a three-semester period (12 months).

## A verification statement for completion of the DI will be granted following successful completion (with a mean GPA of at least 3.0) of:

| DFN 641 | Public Health and Community <br>  <br> Nutrition | 3 |
| :--- | :--- | :--- |
| DFN 651 | Medical Nutrition Therapy | 3 |
| DFN 661 | Food Service Management | 3 |
| DFN 730 | Supervised Professional Practice | 3 |
| HEA 620 | Health Counseling | 3 |

Completion of the master's program is not required for completion of the Dietetic Internship.

## Recreation Education M.S.Ed. Program

The Master's Program in Recreation Education at Lehman College consists of a 33-credit Master of Science in Education degree, which is designed to prepare individuals for professional employment in the broad field of leisure services.

## Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university
- Demonstrate the ability to successfully pursue graduate study. (Above-average academic achievement in general is required.)
- Two letters of recommendation.
- If conditionally admitted, make up not more than 12 credits of specified undergraduate coursework, starting in the first semester and finishing in no more than three consecutive semesters.


## Departmental Retention Policy

Once admitted into one of the graduate programs, students must maintain a Grade Point Average of B. If a student's average falls below $B$, he or she will have one semester to bring the average up to the minimum standard. Failure to do so may result in dismissal from the program.

## Degree Requirements

The curriculum for the M.S.Ed. Program in Recreation includes three options:

Option A: Recreation and Park Administration, which prepares individuals for supervisory and administrative roles in public, voluntary, and commercial recreation agencies.

Option B: Therapeutic Recreation Service, which prepares individuals to deliver therapeutic recreation services in hospitals, nursing homes, day-treatment programs, and other institutional and community settings. Students who complete this option have met the therapeutic recreation option requirements for certification as a Certified Therapeutic Recreation Specialist, administered by the National Council for Therapeutic Recreation Certification.
Option C: Physical Education Teacher: This option is open ONLY to students who possess initial certification as a physical education teacher and are pursuing professional certification, for which this degree will qualify them, according to the NYS Education Department.
Students must complete at least 24 credits in recreation courses, 3 credits in HEA 600 or equivalent, and may complete their additional 6 credits in related areas, with the prior approval of the graduate adviser. A maximum of 12
credits may be transferred from other universities or colleges with the approval of the Graduate Adviser. Upon graduation, all students will have met the academic requirements for certification as a Certified Parks and Recreation Professional, administered by the National Recreation and Parks Association.

## Recreation Education Curriculum

Option A: Recreation and Park Administration (18 credits)
and
Option C: Physical Education Teacher (for initial PE certificants ONLY)

| HEA 600 | Biostatistics | 3 |
| :---: | :---: | :---: |
| REC 700 | Recreation and Leisure in | 3 |
|  | Modern Society |  |
| REC 701 | Research Methods and | 3 |
|  | Evaluation in Recreation |  |
| REC 702 | Recreation Program Planning and | 3 |
|  | Leadership |  |
| REC 703 | Administrative Process in | 3 |
|  | Recreation and Parks |  |
| REC 705 | Community Recreation and Park | 3 |
|  | Facilities |  |

## 3 credits in Therapeutic Recreation:

Select from
REC 640
Therapeutic Recreation \& Disabilities
REC 704 Therapeutic Recreation Service
REC 707 Therapeutic Recreation in 3 Geriatric Settings
REC 708
Therapeutic Recreation in Psychiatric Rehabilitation
REC 709 Therapeutic Recreation and Developmental Disability
REC $710 \quad$ Therapeutic Recreation Applications to Social Problems
REC 711 Therapeutic Recreation Programs and Physical Disability
6 credits of related electives from courses in Health Sciences or Education.

Option B: Therapeutic Recreation Service (18 credits):

| HEA 600 | Biostatistics | 3 |
| :--- | :--- | :--- |
| REC 700 | Recreation and Leisure in <br> Modern Society | 3 |
| REC 701 | Research Methods and <br> REC 702 | Evaluation in Recreation <br> Recreation Program Planning and |
| REC 703 | Leadership <br> Administrative Process in <br> Recreation and Parks | 3 |
|  |  | 3 |

REC 704 Therapeutic Recreation Service 3
12 credits in Therapeutic Recreation courses:

| REC 714 | Therapeutic Recreation Program Design | 3 |
| :---: | :---: | :---: |
| REC 724 | Advanced Therapeutic | 3 |
|  | Recreation Processes |  |
| REC 640 | Therapeutic Recreation \& | 3 |
|  | Disabilities |  |
| REC 680 | Special Topics in Recreation | 3 |
| REC 707 | Therapeutic Recreation in | 3 |
|  | Geriatric Settings |  |
| REC 708 | Therapeutic Recreation in | 3 |
|  | Psychiatric Rehabilitation |  |
| REC 709 | Therapeutic Recreation and | 3 |
|  | Developmental Disability |  |
| REC 710 | Therapeutic Recreation | 3 |
|  | Applications to Social Problems |  |
| REC 711 | Therapeutic Recreation Programs and Physical Disability | 3 |
| REC 790 | Independent Study in Recreation | 1-3 |
| 3 credits in: |  |  |
| REC 715 | Clinical Practice and Internship | 3 |
|  |  |  |
|  | Related electives |  |

Related electives: From courses in Health Sciences or Education.

## History

Chair: Marie C. Marianetti (Carman Hall, Room 202B)
Graduate Adviser: Jose Luis Rénique (Carman Hall, Room 298)

Department Faculty: Distinguished Professor: Joseph W. Dauben; Professors: Timothy Alborn, Jose Luis Rénique; Associate Professors: Martin J. Burke, Dina Le Gall, Marie C. Marianetti, Andrew W. Robertson, Robyn C. Spencer, William Wooldridge, Amanda Wunder; Lecturer: Robert T. Valentine

The Department of History offers a Master of Arts degree in History that is intended primarily for students who anticipate that the master's degree will be their highest earned degree. The course of study is designed to offer an introduction to the professional study of history and to provide mastery of a broad area of history.

## History M.A. Program

## Admission Requirements

- Possess a bachelor's degree (or its equivalent) from an accredited college or university.
- Have demonstrated the potential to successfully pursue graduate study - that is, have attained a minimum undergraduate grade average of B in History courses and a minimum grade average of $B$ - in the undergraduate record as a whole.
- Have taken a minimum of 18 credits of coursework in History, acceptable to the department.
- Submit two letters of recommendation.
- Submit a 1-2 page essay consisting of responses to application-packet questions.
- Submit a sample of college-level writing.
- If conditionally admitted, satisfy the conditions within one year.


## Degree Requirements

| The general requirements for the M.A. Degree in History <br> consist of $\mathbf{3 6}$ credits of coursework: <br> HIW 533 | World History and |  |
| :--- | :--- | :--- |
|  | Historiography |  |
| HIU 534 | Or |  |
|  | U.S. History and Historiography | 3 |
| HIS 780 | Seminar in History |  |
| HIS 781 | Advanced Tutorial Project in | 3 |
| HIS 797 | History <br> Master's Thesis Preparation | 6 |

Other graduate-level coursework
Other graduate-level coursework in history, or in other departments with the permission of the History graduate adviser ( 21 credits).

| Comprehensive oral or written examination (0 credits) <br> Or |  |  |
| :--- | :--- | :--- |
| HIW 533 | World History and <br> Historiography | 3 |
| HIU 534 | Or |  |
| HIS 780 | U.S. History and Historiography | 3 |
| HIS 781 | Seminar in History | 3 |
| HIS 796 | Advanced Tutorial Project in <br> History | 3 |

## Other graduate-level coursework

Other graduate-level coursework in History, or in other departments with the permission of the History graduate adviser ( 24 credits).

## Comprehensive oral or written examination ( 0 credits)

After successfully completing 30 credits of coursework with a 3.0 average, candidates for the M.A. degree who plan to write a thesis must pass a comprehensive oral or written
examination in two fields. These candidates for the M.A. degree must then present a master's thesis, prepared under the direction of a thesis supervisor from the Department of History and an approved second reader, and accepted by the thesis supervisor.

Students who plan to do a capstone project first must successfully complete 33 credits of course work with a 3.0 average. They then must pass a comprehensive oral or written examination in two fields. These candidates for the M.A. degree must then present an approved capstone project, prepared under the direction of an adviser from the Department of History.

## Languages and Literatures

Department Chair: Daniel Fernández (Carman Hall, Room 257)

Graduate Director: Marco Ramirez (Carman Hall, Room 268)
Department Faculty: Professors: Thomas Ihde, Gary S. Schwartz, Thomas C. Spear; Associate Professors: Karin Beck, Alexandra Coller, Carmen Esteves, Daniel Fernández, Beatriz Lado, Óscar Martín, María del Carmen Saen de Casas; Assistant Professors: Evelyn Durán-Urrea, Amin Erfani, Francisco Montaño, Juan Jesús Payán, Marco Ramirez Rojas; Lecturer: Asako Tochika.

The Department of Languages and Literatures currently offers a Master of Arts in Spanish and graduate courses in Old Irish.

## Spanish M.A. Program

## Admission Requirements

- A bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the ability to successfully pursue graduate study. (Above-average academic achievement in general and in Spanish course work is required.)
- Have completed 18 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 9 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
- If conditionally admitted, make up not more than 12 credits of specified undergraduate course work, starting in the first semester and finishing in no more than three consecutive semesters.
- Two letters of recommendation.
- Report to the department for consultation with the adviser and assessment of Spanish language skills prior to matriculation.


## Nonmatriculants

Nonmatriculants are also required to report to the Department of Languages and Literatures for assessment of skills prior to registration.

## Degree Requirements

The M.A. in Spanish requires a total of 30 credits distributed as follows: 24 credits in Spanish, including SPA 601, with a minimum of 3 credits in Peninsular literature and 3 credits in Spanish American literatures. Six (6) elective credits with the permission of the adviser.

All students in the program must pass a comprehensive examination.

## Latin American and Latino Studies

Department Chair: Teresita Levy (Carman Hall, Room 286)
Department Faculty: Distinguished Professor: Laird Bergad; Professors: Forrest Colburn, Alyshia Gálvez, Milagros
Ricourt; Associate Professors: David Badillo, Teresita Levy; Assistant Professors: Mila Burns, Sarah Ohmer; Lecturer: Xavier Totti

The interdisciplinary Department of Latin American and Latino Studies (LALS) offers Bachelor of Arts degrees in Latin American and Caribbean Studies (LAC) and Latino Studies (LTS).

We offer minors in LAC, LTS, and Mexican/Mexican American Studies.

LALS cooperates in preparation for elementary and secondary teaching with Lehman's Department of Early Childhood and Childhood Education and the Department of Middle and High School Education. We also participate in the interdisciplinary Comparative Literature Program and the Women's Studies Option.
Professional Opportunities and Graduate Study: A student receiving a degree in LAC or LTS will receive a solid liberal arts foundation suitable for careers in business, industry, government service, teaching (at all levels), as well as preparation for graduate study in numerous disciplines.

## Liberal Studies (Interdisciplinary)

## Liberal Studies M.A. Program

The M.A. in Liberal Studies Program is an interdisciplinary 36-credit degree program that allows students to design and pursue an individual course of study among several different departments at Lehman College. Students take a 12-credit core of Liberal Studies courses and 18 credits of graduate electives from various departments. The final requirement is to write a 6-credit master's thesis under the supervision of a
faculty member, with the option of substituting a 3-credit capstone project and an additional elective.

## Admission Requirements

- A bachelor's degree with at least a 3.0 grade point average or its foreign equivalent from an accredited college or university. In exceptional cases student with a cumulative undergraduate grade-point average below 3.0 may apply by special petition.
- Submission of an autobiographical letter.
- Two letters of recommendation.
- Submission of a tentative course list related to the area intended to be pursued as a concentration.


## Degree Requirements

## Curriculum ( $\mathbf{3 6}$ credits)

## Core courses ( 12 credits):

MLS 701
Introduction to the Liberal Arts 3

MLS 702 The Arts and Humanities 3
MLS 703 The Social Sciences 3
MLS 704 The Natural Sciences 3

## Electives to be chosen by students and adviser (18 credits):

Students may select any graduate courses in the Liberal Arts offered by Lehman College (consult the list of departments below), or enroll in an independent study (MLS 795) with a supervisor approved by the Program adviser.

## Thesis ( 6 credits):

MLS 797 Master's Thesis Preparation (6 credits).
A written thesis proposal must be approved by the Faculty Advisory Committee, assuming prior approval by the student's first and second readers, by the time the student has completed 20 credits and is about to begin serious research or study related to the master's thesis.

Or:

## Core courses ( 12 credits):

MLS 701 Introduction to Liberal Studies
MLS 702 The Arts and Humanities
MLS 703 The Social Sciences
MLS 704 The Natural Sciences

## Electives to be chosen by students and adviser (21 credits):

Students may select any graduate courses in the Liberal Arts offered by Lehman College (consult the list of departments below), or enroll in an independent study (MLS 795) with a supervisor approved by the Program adviser.

## Capstone (3 credits):

Students who plan to do a capstone project first must successfully complete 33 credits of course work with a 3.0
average. They then must meet with two approved readers to frame an interdisciplinary capstone project (MLS 796), to be completed under the direction of an adviser from the program.
Thesis/capstone defense. Upon completion of all course work and submission of thesis or capstone project, all students must successfully pass a one-hour oral defense with their thesis/capstone committee. The chair of this committee and primary reader/adviser of the thesis/capstone is a faculty member in the field addressed by the thesis/capstone; the second reader of the thesis/capstone will usually be a program faculty adviser, but not necessarily in all cases.

Transfer credits. With appropriate permission, matriculated graduate students may apply to transfer up to 12 credits of graduate courses that have been earned within the last five years. A maximum of six credits can be transferred from courses applied toward a previously awarded master's degree.
Credit for Life Experience. With appropriate permission, matriculated graduate students who have not earned any other life-experience credits within the last five years may earn up to 6 credits (to be treated as transfer credits) for Prior Learning Assessment. PLA is based on the student's ability to demonstrate learning that has taken place through volunteer activities or employment services. This knowledge must fall within one or more of the academic disciplines of the college. PLA rewards students for the time and advancement they have achieved in alternative learning settings. PLA must be in an appropriate field and is approved by the Program director. Students interested in PLA may register for a non-credit Portfolio Development workshop offered by the Office of Continuing Education.

Curriculum. The liberal studies program offers students the opportunity to design a course of study reflecting specific interest in a particular area of concentration. Students may take graduate courses as part of an individualized course of study, designed by the students themselves in consultation with a faculty committee, and suited to their own interests and professional needs. In some area of concentration, students should be prepared to meet basic foreign language requirements where appropriate.

Students may choose any graduate course offered by the following departments:

- Anthropology
- Art
- Biological Sciences
- Chemistry
- English
- Earth, Environmental, and Geospatial Sciences
- History
- Journalism, Communication, and Theatre
- Languages and Literatures
- Latin American, Latino and Puerto Rican Studies
- Mathematics and Computer Science
- Music
- Physics and Astronomy
- Political Science
- Psychology

Advisement. Upon admission, each student is assigned a faculty adviser with special knowledge of the student's anticipated area of concentration. In consultation with his or her faculty adviser, a student develops a coherent course of study that must provide a balanced, interdisciplinary selection of courses in the spirit of the Liberal Studies Program. When a student is ready to choose a particular area of special research interest, he or she is assigned to an appropriate adviser with a particular interest in or special knowledge of the subject in question. Students who lack sufficient prerequisites for the particular area of study in which they choose to concentrate (e.g., the foreign languages required for focused historical or geopolitical study) are advised to add appropriate undergraduate courses to their graduate course-load.

Time Limit. Degree candidates must complete all requirements for the degree within a period of five years following matriculation.

## Mathematics

Chair: Nicholas Hanges (Gillet Hall, Room 211).
Department Faculty: Professors: Jason Behrstock, Michael Handel, Nicholas Hanges, Leon Karp, Nikola Lakic, Melvyn
B. Nathanson, Christina Sormani, Zoltan Szabo, Mahmoud Zeinalian; Associate Professor: Robert Schneiderman; Assistant Professors: Renato Ghini Bettiol, Joseph Fera, Chen-Yun Lin, Megan Owen; Doctoral Lecturers: Celia Cruz, Brian Wynne; Math and Computer Science Learning Center Coordinator: Loric Madramootoo; IT Academic Technology Coordinator: Marvin Florin; Academic Advisor: Tanja Haxhoviq
The Department of Mathematics offers the following graduate degree programs: Master of Arts in Mathematics and Master of Arts for Secondary School Teachers of Mathematics. The Department also offers courses in the Program in Mathematics Education for Intermediate School Teachers, which is administered by the Department of Middle and High School Education.

## Mathematics M.A. Program

The Master of Arts Program in Mathematics is offered for (a) students who may eventually work toward a doctorate in mathematics; (b) those who seek the M.A. as a terminal degree; (c) graduates of the M.A. Program for Secondary School Teachers of Mathematics seeking additional graduate
mathematics credits and who wish the structure of a formal degree program and the credential of a pure mathematics master's degree; (d) qualified students who wish to take individual graduate mathematics courses.

## Admission Requirements

- Have a bachelor's degree or its equivalent from an accredited college or university.
- Demonstrate the potential to successfully pursue graduate study by having attained a minimum undergraduate grade average of B in mathematics courses and a B- in the undergraduate record as a whole. Alternatively, graduation from the Lehman Teachers Master's in Mathematics program or an equivalent master's degree with a B cumulative average may replace undergraduate grade requirements.
- Have completed at least calculus through vector calculus, at least 3 credits in linear algebra, at least 3 credits in modern algebra and at least 3 credits in advanced calculus/analysis. (Students with fewer than 12 credits in mathematics beyond calculus or lacking specific courses may be considered for conditional admission; however, any student admitted must be sufficiently advanced to take at least one course in the program the first semester of matriculation.)
- Submit two letters of recommendation and a personal statement explaining your career plans.
- If conditionally admitted, satisfy the conditions within one year. This can include taking undergraduate courses to satisfy the admission criteria.


## Degree Requirements

The requirements for the M.A. Degree in Mathematics are as follows:

- A program of 30 credits of courses, chosen with the permission of the Graduate Adviser. Students should include in their combined current graduate and prior academic career the following courses: (a) MAT 751: Theory of Functions of a Real Variable, (b) MAT 753: Theory of Functions of a Complex Variable I, (c) MAT 616: Algebra.
- At least 18 of the credits must be taken as a matriculated student at Lehman. Students considering going on to a mathematics doctorate are encouraged to take some of their final credits in the CUNY Graduate Center Ph.D. Program in Mathematics.
- A written comprehensive examination is required. The exam shall cover the three courses prescribed above.
Students are required to maintain a cumulative $B$ average to stay in good standing, and must have an overall $B$ average to graduate. Two consecutive semesters in attendance out of
good standing is cause for dismissal. MAT 582, MAT 601, MAT 602, MAT 603, MAT 604, and MAT 615 may not be used toward this degree.


## Mathematics and Instruction M.A. Program

The Department of Mathematics offers courses designed to meet the needs of students who are interested in increasing their skills in mathematics and teaching. This program is a master's program leading to New York State professional certification, developed for those holding New York State initial teacher certification in mathematics, grades 7-12.

## Admission Requirements

An applicant must:

- hold a bachelor's degree (or its equivalent) from an accredited college or university.
- have initial New York State Teacher Certification in Mathematics Education, Grades 7 - 12.
- demonstrate the ability to successfully pursue graduate study. (Above-average academic achievement in general and in the teaching specialization is required).
- have completed a 3-4 credit course in vector calculus, a 34 credit course in linear algebra and a 3-4 credit course in discrete mathematics. The required math prerequisites should have an average of $B$ - or above.
- have completed or be in the process of completing one year of supervised teaching and two or more years of teaching in content area.
- provide two letters of recommendation.
- completed course equivalent to ESC 506: Special Needs Education in TESOL and Secondary Settings or EDS 701: Understanding Individuals with Disabilities. Applicants who have not taken such a course may be accepted, but must take a stand alone 3 credit course in teaching students with disabilities in addition to the program requirements.


## Degree Requirements

21-24 credits in MAT 600 courses and above including MAT 601 (Secondary School Mathematics from an Advanced Standpoint) and at least one course in each mathematical area: Analysis, Algebra, \& Geometry
9 credits from School of Education with a GPA of B or better:
ESC 740 Teaching Mathematics in Grades 7-10
ESC 748 Teaching Problem Solving in Mathematics in Middle and High School
ESC 749

Teaching Mathematics in Grades 11 and 12

## Comprehensive exams based on four mathematics courses (3-4 credits each).

## Middle and High School Education

Chair: Wesley Pitts (Carman Hall, Room B29)

Department Faculty: Professor: Cecelia Cutler, Serigne M. Gningue, Herminio Martinez; Associate Professors: Orlando Alonso, Gillian Bayne, Amanda Gulla, Immaculee Harushimana, Wesley Pitts, Daniel Stuckart; Assistant Professors: Sherry Deckman, Tiffany Dejaynes, David Fletcher, Roger Peach, Joye Smith-Munson; Lecturer: Celia Cruz, Sunyata Smith; College Lab Technician: Joi Jones.
Coordinators (Carman Hall, Room B29): Daniel Stuckart, Social Studies Education; Gillian Bayne, Wesley Pitts, Sunyata Smith, Science Education: David Fletcher, Undergraduate Coordinator; Amanda Gulla, English Education; Joye Smith, Immaculee Harushimana, Foreign Language Education; Serigne Gningue, Orlando Alonso, Mathematics Education

For advisement about teacher certification in these and other areas, check with the School Certification Officer (Carman Hall, Room B33).

The Department of Middle and High School Education offers the following programs described below:

- M.S.Ed. in Business and Technology Education (Students are not currently being accepted into this program.)
- M.S.Ed. in English Education
- Advanced Certificate: English Education (21-24 credits)
- M.S.Ed. in Mathematics Education (5-9 or 7-12)
- Advanced Certificate: Mathematics Education (21-24 credits)
- M.S.Ed. in Science Education
- Advanced Certificate: Science Teacher (21-24 credits)
- M.A. for Secondary School Teachers of Social Studies
- Advanced Certificate: Social Studies Education (21-24 credits)
- M.S.Ed. in Teaching English to Speakers of Other Languages (TESOL) Advanced Certificate: TESOL
- M.A. Teaching Spanish
- Advanced Certificate: Teaching Languages Other than English (LOTE) (21-24 credits)
- Advanced Certificate: Bilingual Extension (Birth-Grade 12)

The Department of Middle and High School Education offers graduate programs in English Education, Foreign Language Education, Mathematics Education, Science Education, Social Studies Education, Teaching English to Speakers of other Languages (TESOL), and Bilingual Education.

Students interested in obtaining a master's degree in other secondary-school certification areas should also consult information contained within this Bulletin under the relevant department(s) and meet with an adviser in the Department of Middle and High School Education.

In addition, individual programs may require the fulfillment of undergraduate-level prerequisites. These prerequisites cannot be used to fulfill degree requirements in graduate programs and must be taken in addition to degree requirements. See individual program advisers for information and guidance.

As of Fall 2011, students matriculated into all graduate certification programs shall be required to take ESC 506 or the equivalent in addition to all other degree and certification requirements, as per the New York State Education Department.
Middle and High School Education programs engage students in work that relates to their experiences as classroom teachers and expands their horizons to new opportunities in their schools and districts. The programs provide both theory and hands-on techniques for instruction and classroom management. An experiential, problem-solving approach to instruction combines time-honored methods with the latest technologies for building broad, transferable personal and occupational skills. Programs provide a background in theories of learning, the social and philosophical foundations of education, curriculum design, methods of teaching, and research techniques critical for all teachers.

## Business and Technology Education M.S.Ed. Program

*Students are not currently being accepted into this program.
This program leads to a master's degree in Business and Technology Education. It can also provide initial certification in teaching business and marketing subjects. Upon completion of additional requirements, candidates will be eligible to receive New York State professional certification to teach business and marketing subjects. The M.S.Ed. program in Business and Technology Education is designed for two groups of students:
Sequence 1 (33-36 credits). Holders of bachelor's degrees who majored in an area of business and are seeking initial certification as teachers of business and marketing.

Sequence 2 (30 credits). Holders of bachelor's degrees who majored in an area of business and are seeking a master's degree but not certification. Students in this sequence may wish to teach in adult learning settings, such as private business schools, community colleges, and training institutes.

## Business and Technology Education Admission Requirements

- A bachelor's degree or equivalent from an accredited college or university with a major in business and marketing or its equivalent and an overall index of 2.7 or better.
- Business and technology coursework to include at least one course from 6 of the following areas: Accounting, Business Law, Career Development, Communications, Computation, Economics and Personal Finance, Entrepreneurship, Information Systems, International Business, Interrelationships of Business Functions, Marketing, and Management; with an overall index of 3.0 or better in business and technology courses.
- Submit scores on the New York State Liberal Arts and Sciences Test (LAST).
- Two letters of recommendation, at least one from a college or university instructor of business, technology, and marketing.
- Personal interview.


## Business and Technology Education Degree Requirements

All courses must be selected in consultation with, and with the approval, of an adviser in business and technology education. All students will complete the 30-credit program listed below. Sequence 1 students will complete the basic program plus student teaching or its equivalent: ESC 595 (3) or ESC 596 (6).

## Business and Technology Education

## Program Overview

The basic, 30 -credit curriculum, in three instructional modules, is as follows:
Core Education Sequence ( 15 credits):

| ESC 501 | Psychological Foundations of <br> Education | 3 |
| :--- | :--- | ---: |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural | 3 |
|  | Perspective |  |
| ESC 520 | Teaching Business Subjects in | 3 |
| ESC 529/EDR | Middle and High School | Language and Literacies |
| 529/ESC 529 | Acquisition in Secondary | 3 |
| ESC 536 | Education <br> Teaching Technology Subjects <br> in Middle and High School | 3 |

## Research or Curriculum Development ( 15 credits):

Students follow either the research sequence (A) or the curriculum sequence (B).

## Research Sequence A (15 credits):

Advanced Pedagogical Sequence (choose 9 from the following):

| ESC 722 | Teaching Communication Skills <br> in the Content Areas | 3 |
| :--- | :--- | ---: |
| ESC 782 | Methods of Teaching Business <br> and Technology Education. | 3 |
|  | Selected Topics |  |
| ESC 788 | Curriculum Theory and Design | 3 |
| ESC 790 | Workshop in Curriculum | $1-3$ |
|  | Materials Development in |  |
|  | Specialized Areas |  |

Plus each of the following ( 6 credits):
ESC $705 \quad$ Methods of Educational 3
ESC $706 \quad$ Project Seminar I 1
ESC $707 \quad$ Project Seminar II 2
Curriculum Sequence B (total 15 credits):
Advanced Pedagogical Content (12 credits):

| ESC 772 | Evaluation and Assessment of | 3 |
| :--- | :--- | ---: |
| ESC 782 | Student Learning <br>  <br>  <br>  <br>  <br> Methods of Teaching Business <br> and Technology Education. | 3 |
| ESC 788 | Selected Topics |  |
| ESC 790 | Curriculum Theory and Design | 3 |
|  | Workshop in Curriculum | $1-3$ |
|  | Materials Development in |  |
|  | Specialized Areas |  |

Plus the following ( $\mathbf{3}$ credits):
ESC 789 Independent Study in

Curriculum Development

## Internship or Student Teaching:

(for students in Sequence 1 and working toward teacher certification) (3-6 credits):
ESC 595 Internship in Classroom
Teaching
Or
Student Teaching in the Middle 3
and High School Grades

## English Education M.S.Ed. Program

Effective: Fall 2019. Students whose major declaration for this program is effective beginning in the Fall of 2019 or thereafter must follow these requirements. Students whose declarations were for previous semesters follow the requirements that were in effect at the time of declaration. See link below for the most recent English Education M.S.Ed. Program requirements prior to Fall 2019. Please refer to DegreeWorks or consult an advisor to review your requirements and track your progress.

This program is designed for students seeking a master's degree in English Education, grades 7-12. Upon successful completion of additional certification requirements, including specified teacher examinations, candidates will also be eligible to receive both Initial and Professional Certification to teach English in New York State in Grades 7-12. Applicants will apply to one of the 4 following sequences based on their qualifications:

Sequence 1 ( $\mathbf{3 0}$ crs.): Candidates already certified in English Education 7-12.

Sequence 2 (32-36 crs.): Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Sequence 3 (40-45 crs.): Candidates who seek initial New York State certification in English Education 7-12 but who lack any coursework in education.

Sequence 4 ( $\mathbf{3 8}$ crs.): Transitional B candidates who seek initial New York State certification in English Education 7-12.

## English Education Admission Requirements

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- If conditionally admitted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 1, present evidence of NYS teacher certification in English Education 7-12.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequence 4 only, possess Transitional B certificate in Teaching English grades 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Submit a 500 -word essay outlining career goals.
- Submit two to three letters of recommendation.
- Participate in an individual interview.


## English Education Degree Requirements

Students must consult with an adviser in the M.S Ed program in English Education before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students will complete one of the following sequences: Sequence 1 (30
crs.), Sequence 2 (32-36 crs.); Sequence 3 (40-45 crs.) or Sequence 4 ( 38 crs .).

## Sequence 1 (30 crs.):

Candidates who are already certified in English Education 712.

| Methods of Teaching English in Middle and High School <br> $(\mathbf{1 5 - 1 8} \mathbf{c r s}):$ | Teaching English in Middle and | 3 |
| :---: | :--- | :--- |
| ESC 522 | High School |  |
| ESC 721 | Literature for Middle and High | 3 |
| ESC 724 | School Students <br> Methods of Teaching Writing in | 3 |
| ESC 725 | Middle and High School | Teaching English Grammar |
| ESC 730 | Methods of Teaching English in | 3 |
| ESC 720 | Middle and High School: Selected <br> Topics | 3 |
| ESC 722 | Reading and Reading Materials <br> for Adolescents | 3 |
|  | Teaching Communication Skills <br> in the Content Areas | 3 |

ESC 522: Except for those who completed ESC 422 or equivalent as undergraduates.

## English Electives ( $\mathbf{9}-\mathbf{1 2}$ credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

```
Master's Project (3 credits):
    ESC 708
    Project Seminar in Curriculum,
        Materials, and Assessment in
    Specialized Areas
```

ESC 708: Culminates in an approved curriculum project.

## Sequence 2 (31-36 crs.):

Candidates seeking initial certification who have met core education requirements.

| Methods of Teaching English in Middle and High School <br> (15-18 crs): | Teaching English in Middle and | 3 |
| :---: | :--- | :--- |
| ESC 522 | High School |  |
| ESC 721 | Literature for Middle and High | 3 |
| ESC 724 | School Students <br> Methods of Teaching Writing in | 3 |
| ESC 725 | Middle and High School |  |
| ESC 730 | Teaching English Grammar <br> Methods of Teaching English in | 3 |
| ESC 772 | Middle and High School: | 3 |
|  | Selected Topics <br> Evaluation and Assessment of | 3 |

ESC 522: Except for those who completed ESC 422 or equivalent as undergraduates.

## English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

## Master's Project (3 credits): <br> Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

ESC 708: Culminates in an approved curriculum project.

| Student Teaching or Teaching Internship (4-6 crs): |  |  |
| :--- | :--- | ---: |
| Teaching Internship <br> ESC 595 | Internship in Classroom <br> Teaching <br> Plus | $1-3$ |
| ESC 612 | Seminar in Secondary Student <br> Teaching | 3 |
| or |  |  |
| Student Teaching |  |  |
| ESC 596 | Student Teaching in the Middle <br> and High School Grades | 3 |
| ESC 612 | Plus |  |
| Seminar in Secondary Student |  |  |$\quad 3$| Teaching |
| :--- |

Sequence 3 (40-45 crs.):
Candidates with an undergraduate degree in English or the equivalent who lack education courses and who seek initial certification in English Education grades 7-12.

| Core Education (15 credits): |  |  |
| :--- | :--- | ---: |
| ESC 501 | Psychological Foundations of <br> Education | 3 |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural | 3 |
| ESC 529/EDR | Perspective | Language and Literacies <br> Acquisition in Secondary <br> Education |
| ESC 506 529 | Special Needs Education in <br> TESOL and Secondary Settings | 3 |
| ESC 522 | Teaching English in Middle <br> and High School | 3 |

ESC 506: Or the equivalent.
Methods of Teaching English in Middle and High School ( 9 credits):
Selected from:
ESC 720
Reading and Reading Materials
ESC 721 for Adolescents
-
Literature for Middle and High

ESC 722 Teaching Communication Skills 3 in the Content Areas
ESC $724 \quad$ Methods of Teaching Writing in 3 Middle and High School
ESC $730 \quad$ Methods of Teaching English in 3 Middle and High School: Selected Topics
Evaluation and Assessment of 3
Student Learning
Teaching English Grammar
English Electives ( $\mathbf{9 - 1 2}$ credits):
Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.
Master's Project (3 credits):

| ESC 708 | Project Seminar in Curriculum, | 3 |
| :--- | :--- | :--- |
|  | Materials, and Assessment in |  |
|  | Specialized Areas |  |

ESC 708: Culminates in an approved curriculum project.
Student Teaching or Teaching Internship (4-6 crs):

| Teaching Internship |  |  |
| :--- | :--- | ---: |
| ESC 595 | Internship in Classroom | $1-3$ |
|  | Teaching |  |
| ESC 612 | Plus |  |
|  | Seminar in Secondary Student <br> Teaching | 3 |

or
Student Teaching
ESC 596

## ESC 612

## Sequence 4 ( $\mathbf{3 8}$ crs.):

Teachers who hold a valid Transitional B certificate in English Education grades 7-12 from New York State.

| Core Education (12 credits): |  |  |
| :--- | :--- | :--- |
| ESC 501 | Psychological Foundations of <br> Education | 3 |
| ESC 529/EDR | Language and Literacies <br> Acquisition in Secondary | 3 |
| ESC 506/ESC 529 | Education |  |
| ESC 522 | Special Needs Education in <br> TESOL and Secondary Settings | 3 |
|  | Teaching English in Middle <br> and High School | 3 |

ESC 506: Or the equivalent.

## Methods of Teaching English in Middle and High School ( 9 credits):

Selected from:

| ESC 720 | Reading and Reading Materials <br> for Adolescents | 3 |
| :--- | :--- | ---: |
| ESC 721 | Literature for Middle and High | 3 |
| ESC 724 | School Students <br> Methods of Teaching Writing in | 3 |
| ESC 730 | Middle and High School | Methods of Teaching English in |
|  | Middle and High School: |  |
| ESC 772 | Selected Topics |  |
| ESC 725 | Evaluation and Assessment of <br> Student Learning | 3 |
| ESC | Teaching English Grammar | 3 |

## English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

## Master's Project (3 credits): <br> ESC 708 <br> Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

ESC 708: Culminates in an approved curriculum project.
Teaching Internship (5 credits):

| ESC 595 | Internship in Classroom <br> Teaching <br> ESC 612 |
| :--- | :--- |
|  | Plus <br> Seminar in Secondary Student <br> Teaching |

Additional Requirements for Initial and Professional Certification in English Education 7-12.
All candidates must take the English Language Arts Content Specialty Test (CST) by the end of their second semester in the program. Candidates who do not pass the exam before completing half of their program credits may be asked to take additional English courses.
In order to be recommended for initial certification in English Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), Teacher Performance Assessment (edTPA), and English CST (teachers who were certified prior to April 30, 2014, only present passing scores on the English CST); and (c) demonstrate successful completion of a liberal arts and sciences core. Please see advisor for more information.

In order to qualify for professional certification in English Education 7-12, in addition to the master's degree, teachers must complete one year of mentored, full-time teaching and
two years of full-time teaching in a public or private school which serves grades 7-12, and must meet any additional New York State requirements.

Qualified English Education 7-12 candidates may also apply to the Advanced Certificate: Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study.
English Education M.S.Ed. Program Prior to Fall 2019
For previous bulletins click here

## English Education Advanced Certificate Program (26-27 Credits)

This program is designed for candidates who already have a master's degree in English or a related field and who seek New York State certification.

Students must consult with an adviser in the English Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with an English Education adviser. All students must complete the 26-27 credit curriculum below. In order to be recommended for NYS certification at the completion of the Certificate Program, candidates must pass the LAST, the CST in English, and the Written Assessment of Teaching Skills (ATS-W), and meet all additional New York State foreign language, arts, and science requirements.

## English Education Advanced Certificate Program Admission Requirements

- Possess an approved bachelor's degree (or its equivalent) from an accredited college or university that meets the State requirements for a general education core in liberal arts and sciences.
- Possess a master's degree in English or a related field.
- Demonstrate the ability to successfully pursue graduate study by having a master's Grade Point Average of 3.0 or better.
- Submit two (2) letters of recommendation and a 500 -word essay on career goals.
- Participate in an interview.
- Meet additional Departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

The 26-27 credit certificate curriculum consists of three instructional areas:
I. Foundations of Education ( 12 credits)

| ESC 501 | Psychological Foundations of <br> Education |
| :--- | :--- |
| ESC 502 | Historical Foundations of |
|  | Education: A Multicultural <br> Perspective |
| ESC 529/EDR | Language and Literacies |
| 529/ESC 529 | Acquisition in Secondary <br> Education |
| ESC 506 | Special Needs Education in |

TESOL and Secondary Settings
ESC 506: Or the equivalent.

| II. Methods, Curriculum, and Instruction (9 credits) |  |
| :---: | :--- |
| ESC 522 | Teaching English in Middle and |
|  | High School |

6 additional credits to be selected in consultation with the program coordinator from the courses below:

| ESC 720 | Reading and Reading Materials <br> for Adolescents | 3 |
| :--- | :--- | :--- |
| ESC 721 | Literature for Middle and High | 3 |
| ESC 724 | School Students <br> Methods of Teaching Writing in | 3 |
|  | Middle and High School |  |


| III. Practicum (5-6 credits) |  |  |
| :---: | :---: | :---: |
| ESC 595 | Internship in Classroom | 1-3 |
|  | Teaching |  |
|  | And |  |
| ESC 612 | Seminar in Secondary Student | 3 |
|  | Teaching |  |
|  | Or |  |
| ESC 596 | Student Teaching in the Middle and High School Grades | 3 |
|  | And |  |
| ESC 612 | Seminar in Secondary Student | 3 |
|  | Teaching |  |

Mathematics Education, Middle Childhood
Education (5-9) or Adolescent Education (7-12)

## M.S.Ed. Program

The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied.
A. To be eligible for the Master's in Mathematics Education for Grades 5-9, candidates must fall into one of the following categories:

Sequence 1 (38-42 credits). For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, but who lack professional education coursework.

Sequence 2 (37-38 credits). For teachers who hold a Transitional B certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

## Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.
2. Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 2.7 or better in all mathematics courses taken.
3. For Sequence 2, must hold a valid Transitional B Certificate from NYSED.
4. Submission of scores on the New York State Content Specialty Test (CST) in Mathematics.
5. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
6. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
7. A 500 word essay on career goals.
8. A personal interview.

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.
2. For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken
3. For Sequence 4: Mathematics major
4. For Sequence 5: Mathematics major and NYS Transitional B Certificate
5. Submit scores on the New York State Content Specialty Test (CST) in Mathematics.
6. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
7. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
8. A 500 -word essay on career goals.
9. A personal interview.

## Middle Childhood Education Degree Requirements

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their semester of attendance. Students must complete one of the two sequences outlined below.
Sequence 1. (1) 33 credits of prescribed course work; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 2. (1) 33 credits of prescribed course work; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

## Middle Childhood Education Overview of the Program

Sequence 1 students must successfully complete the following:

- 15-18 credits of Core Education courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.
- 9 credits in pedagogical content in mathematics education.
- 12 credits in mathematics.
- A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.
Sequence 2 (Transitional B-Grades 5-9) students must successfully complete the following:
- 14 credits of Core Education Courses, including 2 credits of supervised fieldwork and 3 credits of special education coursework.
- 9 credits in pedagogical content in mathematics education.
- 12 credits in mathematics.
- A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.


## Curriculum

Sequence 1 (Grades 5-9) 38-42 Credits
I. Core Education Courses: (17-18 credits)

| ESC 501 | Psychological Foundations of <br> ESC 502 | Education |
| :--- | :--- | ---: |
|  | Historical Foundations of <br> Education: A Multicultural | 3 |
| ESC 506 | Perspective | Special Needs Education in |
|  | TESOL and Secondary Settings |  |


| ESC 532 | Teaching Mathematics in Middle and High School | 3 |
| :---: | :---: | :---: |
| ESC 595 | Internship in Classroom | 3 |
|  | Teaching |  |
|  | And |  |
| ESC 612 | Seminar in Secondary Student | 3 |
|  | Teaching |  |
|  | Or |  |
| ESC 596 | Student Teaching in the Middle and High School Grades | 3 |
|  | And |  |
| ESC 612 | Seminar in Secondary Student | 3 |
|  | Teaching |  |
| II. Pedagogical Content in Mathematics Education (9 credits) |  |  |
| ESC 740 | Teaching Mathematics in Grades | 3 |
|  | 7-10 |  |
| ESC 742 | Research in Mathematics | 3 |
|  | Education |  |
| ESC 748 | Teaching Problem Solving in | 3 |
|  | Mathematics in Middle and High |  |
|  | School |  |
| III. Mathematics (12 credits) |  |  |
| MAT 601 | Secondary School Mathematics | 3 |
|  | from an Advanced Standpoint |  |
| MAT 602 | Introduction to Number Theory and Modern Algebra I | 3 |
| MAT 655 | Exploring Mathematics Using | 2 |
|  | Technology |  |
| MAT 661 | History of Mathematics | 4 |
| IV. Culminating Experience (0-3 credits) |  |  |
| ESC 706 | Project Seminar I |  |
| ESC 707 | Project Seminar II | 2 |
|  | Or |  |
|  | Comprehensive Examination | 0 |
| Sequence 2 (Transitional B Sequence for Grades 5-9) 37-38 credits |  |  |
| I. Core Education Courses: (16 credits) |  |  |
| ESC 501 | Psychological Foundations of | 3 |
| ESC 502 | Historical Foundations of | 3 |
|  | Education: A Multicultural |  |
|  | Perspective |  |
| ESC 506 | Special Needs Education in | 3 |
|  | TESOL and Secondary Settings |  |
| ESC 532 | Teaching Mathematics in Middle and High School | 3 |
| ESC 595 | Internship in Classroom | 1-3 |
|  | Teaching |  |
| ESC 612 | Seminar in Secondary Student | 3 |

## Teaching

| II. Pedagogical Content in Mathematics Education (9 <br> credits) |  |
| :--- | :--- |
| ESC 740 | Teaching Mathematics in Grades |
| ESC 742 | $7-10$ <br> Research in Mathematics <br> Education |
| ESC 748 | Teaching Problem Solving in <br> Mathematics in Middle and High |
| School |  |

$\begin{array}{ccc}\text { IV. Culminating Experience (0-3 credits) } \\ \text { ESC } 706 & \text { Project Seminar I } & 1\end{array}$
ESC $707 \quad$ Project Seminar II Or Comprehensive Examination

## Middle Childhood Education Continuation Requirements

Students must maintain a 3.0 Grade Point Average throughout the course of study.
B. To be eligible for the Master's in Mathematics Education for Grades 7-12, candidates must fall into one of the following categories:
Sequence 3 (44-48 credits). For liberal arts and sciences graduates who do not hold a bachelor's degree in mathematics but who have completed 15 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, but who lack professional education coursework.

Sequence 4 (38-42 credits). For candidates who hold a bachelor degree in mathematics only, but who lack professional education coursework.
Sequence 5 (37-38 credits). For teachers who hold a bachelor's degree in mathematics and a Transitional B Certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

## Middle Childhood Education Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.
2. 

- For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken;
- For Sequence 4: Mathematics major;
- For Sequence 5: Mathematics major AND NYS Transitional B Certificate.

3. Submit scores on the New York State Content Specialty Test (C.S.T.) in Mathematics.
4. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
5. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
6. A 500 word essay on career goals.
7. A personal interview.

## Adolescent Education Degree Requirements (Grades 7-

 12)Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their first semester of attendance. Students must complete one of the three sequences outlined below:
Sequence 3. (1) 39 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.
Sequence 4. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.
Sequence 5. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

## Adolescent Education Program Overview

## Sequence 3 (Grades 7-12)

Students must successfully complete the following:

- 17-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.
- 12 credits in pedagogical content in mathematics education.
- 15 credits in mathematics. Students who lack History of Mathematics as a prerequisite must register for MAT 661.
- A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 4 (Math majors who do NOT hold a NYS Transitional B Certificate, 7-12)
Students must successfully complete the following:

- 17-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;
- 12 credits in pedagogical content in mathematics education.
- 9 credits in mathematics electives to be chosen in consultation with a program adviser.
- A comprehensive written examination or research project is required after all course work has been completed. Students who elect to conduct a research project must enroll in tjree additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades $7-12$ prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 5 (Math Majors who hold a NYS Transitional B Certificate, 7-12)

Students must successfully complete the following:

- 16 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;
- 12 credits in pedagogical content in mathematics education.
- 9 credits in mathematics electives to be chosen in consultation with a program adviser.
- A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.


## Adolescent Education Curriculum

## Sequence 3 (Grades 7-12)

44-48 credits

## I. Core Education Courses (17-18 credits):

Psychological Foundations of
Education
Historical Foundations of
Education: A Multicultural
Perspective

| ESC 506 | Special Needs Education in <br> TESOL and Secondary Settings <br> Teaching Mathematics in Middle <br> and High School | 3 |
| :--- | :--- | ---: |
| ESC 532 | Internship in Classroom <br> Teaching <br> And | $1-3$ |
| ESC 595 612 | Seminar in Secondary Student <br> Teaching | 3 |
| ESC 596 | Or <br> Student Teaching in the Middle <br> and High School Grades <br> And <br> Seminar in Secondary Student | 3 |
| ESC 612 | Teaching | 3 |

## II. Pedagogical Content in Mathematics Education (12

 credits):| ESC 740 | Teaching Mathematics in Grades | 3 |
| :--- | :--- | ---: |
| ESC 742 | $7-10$ | 3 |
| ESC 748 | Research in Mathematics Education | Teaching Problem Solving in |
|  | Mathematics in Middle and High <br> ESC 749 | School |
|  | Teaching Mathematics in Grades <br> 11 and 12 | 3 |

III. Mathematics ( 15 credits):

MAT 601 Secondary School Mathematics 3 from an Advanced Standpoint
MAT 604 Application of the Real and 3
Complex Number Systems
MAT 637 Topics in Discrete Mathematics 4
MAT 655 Exploring Mathematics Using 2
Technology
MAT 615 Modern Algebra

## IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

| ESC 706 | Project Seminar I | 1 |
| :--- | :--- | :--- |
| ESC 707 | Project Seminar II | 2 |

Sequence 4 (Grades 7-12)
38-42 credits

## I. Core Education Courses: (17-18 credits):

ESC 501 Psychological Foundations of Education Historical Foundations of

Education: A Multicultural Perspective

| ESC 506 | Special Needs Education in <br> TESOL and Secondary Settings | 3 |
| :--- | :--- | ---: |
| ESC 532 | Teaching Mathematics in Middle <br> and High School | 3 |
| ESC 595 | Internship in Classroom <br> Teaching | $1-3$ |
| ESC 612 | And |  |
|  | Seminar in Secondary Student <br> Teaching | 3 |
| ESC 596 | Or | Student Teaching in the Middle <br> and High School Grades |
|  | And | 3 |
| ESC 612 | Seminar in Secondary Student <br> Teaching | 3 |

## II. Pedagogical Content in Mathematics Education (12

 credits):| ESC 740 | Teaching Mathematics in Grades $7-10$ |
| :---: | :---: |
| ESC 742 | Research in Mathematics Education |
| ESC 748 | Teaching Problem Solving in Mathematics in Middle and High School |
| ESC 749 | Teaching Mathematics in Grades 11 and 12 |

## III. Mathematics ( 9 credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

## IV. Culminating Experience (0-3 credits).

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

| ESC 706 | Project Seminar I | 1 |
| :--- | :--- | :--- |
| ESC 707 | Project Seminar II | 2 |

Sequence 5 (Math Majors who are eligible for a NYS
Transitional B Certificate, 7-12)
37-38 credits

| I. Core Education Courses: (16 credits): |  |  |
| :---: | :--- | ---: |
| ESC 501 | Psychological Foundations of <br> Education | 3 |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural | 3 |
| ESC 506 | Perspective |  |
| Epecial Needs Education in |  |  |
| ESC 532 | TESOL and Secondary Settings <br> Teaching Mathematics in Middle <br> and High School | 3 |
| ESC 595 | Internship in Classroom | 3 |

ESC 612 | Seminar in Secondary Student |
| :--- | :--- |
| Teaching |

| ESC 740 | Teaching Mathematics in Grades 7-10 |
| :---: | :---: |
| ESC 742 | Research in Mathematics Education |
| ESC 748 | Teaching Problem Solving in Mathematics in Middle and High School |
| ESC 749 | Teaching Mathematics in Grades 11 and 12 |

## III. Mathematics ( $\mathbf{9}$ credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

## IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

| ESC 706 | Project Seminar I | 1 |
| :--- | :--- | :--- |
| ESC 707 | Project Seminar II | 2 |

## Sequence 6 (Non Math Majors who are eligible for a NYS Transitional B Certificate-Grades 7-12)

(38-41 credits)

| I. Core Education Courses (11 credits): |  |  |
| :---: | :--- | ---: |
| ESC 501 | Psychological Foundations of <br> Education | 3 |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural | 3 |
| ESC 532 | Perspective <br> Teaching Mathematics in Middle <br> and High School | 3 |
| ESC 595 | Internship in Classroom <br> Teaching | $1-3$ |

II. Pedagogical Content in Mathematics Education (12 credits):

| ESC 740 | Teaching Mathematics in Grades | 3 |
| :--- | :--- | :--- |
| ESC 742 | $7-10$ <br> Research in Mathematics <br> Education | 3 |
| ESC 748 | Teaching Problem Solving in <br> Mathematics in Middle and High | 3 |
| ESC 749 | School <br> Teaching Mathematics in Grades | 3 |
|  | 11 and 12 |  |

7-10
ESC 742 Research in Mathematics 3
Education
ESC 748 Teaching Problem Solving in
Mathematics in Middle and High School
Teaching Mathematics in Grades 3 11 and 12
III. Mathematics ( 15 credits): MAT 601 Secondary School Mathematics
12


## MAT 604

MAT 637
MAT 655

MAT 615

## IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination.
Students who elect to write a Master's thesis must concurrently enroll in:

| ESC 706 | Project Seminar I | 1 |
| :--- | :--- | :--- |
| ESC 707 | Project Seminar II | 2 |

Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9 (Middle Childhood Education)

## Extension Program in Mathematics Education (17 credits)

This program is designed for candidates who hold New York State initial certification to teach Mathematics in grades 5-9 (Middle Childhood Education) and wish to extend their certification to include grades 7-12 (Adolescent Education).

## Admission Requirements

- Possess New York State initial certification to teach mathematics in grades 5-9.
- Have at least two semesters of successful experience teaching mathematics in grades 7,8 , or 9 ; or one semester of supervised student teaching in mathematics in grades 7 , 8 , or 9 (with a grade of $B$ or better).
- Present coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.
- Submit scores on the NYS Content Specialty (CST) Test in Mathematics.
- Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.
- Submit a 500 -word essay on career goals.
- Participate in an interview.
- Meet additional departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.


## Continuation Requirements

- Students must maintain a 3.0 grade point average throughout the course of study.


## Certificate Requirements

The Extension Program in Mathematics Education consists of 17 credits, as outlined below. A minimum of a B average must be maintained throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program.

Overview of the Program

## Curriculum

Curriculum and Instruction ( 6 credits):

ESC 748

ESC 749

Teaching Problem Solving in Mathematics in Middle and High School
Teaching Mathematics in Grades 11 and 12

## Middle Childhood Extension Advanced Certificate, Grades 5-6

This program is designed for teachers who hold New York State certification in one of the academic content areas grades 7-12 and who seek an extension to teach that subject in grades 5-6.

## Admission Requirements

New York State initial or professional certification in one of the following academic content areas, Grades 7-12: Biology, Chemistry, Earth Science, English, Foreign Language, Mathematics, Physics, or Social Studies. Candidates holding provisional or permanent certification must submit passing scores on the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills-Written (ATS-W), and the Content Specialty Test (CST) in their subject area.

## Certificate Requirement

Candidates must consult with an adviser in their subject area before beginning their studies.

## Curriculum

The 6-credit curriculum consists of two instructional areas:
Introduction to Middle Childhood Education:
Perspectives on Middle School
Education

## Curriculum and Instruction:

ESC 509
Instructional Practices Across the
Middle School Curriculum

## Mathematics Education Advanced Certificate (25-27 Credits)

This program is designed for candidates who hold a bachelor's degree in mathematics and a master's degree in mathematics or in an approved mathematics-related field, and who seek New York State Certification in mathematics, grades 7-12.

## Advanced Certificate in Mathematics Education Admission Requirements

Candidates wishing to enter the Mathematics Education Certificate Program must meet the following conditions as determined by the program coordinator:

- Possess a bachelor's degree (or its equivalent) from an accredited college or university which meets New York State requirements for a general education core in the liberal arts and sciences. This degree shall include a mathematics major, with a minimum of 36 credits in mathematics.
- Possess a master's degree in mathematics or an approved mathematics-related field.
- Demonstrate the ability to successfully pursue graduate study by having a master's grade point average (GPA) of 3.0 or better.
- Satisfy the content requirements for New York State initial certification.
- Submit scores on the NYS LAST Teacher Examination and the NYS Content Specialty Test in Mathematics (CST).
- Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.
- Submit a 500 -word essay on career goals.
- Participate in a personal interview.
- Meet additional departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.


## Advanced Certificate in Mathematics Education Requirements

The Certificate Program in Mathematics Education consists of 24-27 credits, as outlined below. Students must maintain a minimum B average throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program. In order to be recommended for NYS certification at the completion of the Program, candidates must have passed the LAST, the CST in

Mathematics, and the NYS Written Assessment of Teaching Skills (ATS-W); they must also meet any additional requirements set by New York State.
Advanced Certificate in Mathematics Education
Curriculum
I. Foundations of Education (9)

| ESC 501 | Psychological Foundations of <br> Education | 3 |
| :---: | :--- | :---: |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural | 3 |
| ESC 506 | Perspective | Special Needs Education in <br> TESOL and Secondary Settings |
| II. Curriculum and Instruction (12) |  |  |
| ESC 532 | Teaching Mathematics in Middle <br> and High School | 3 |
| ESC 740 | Teaching Mathematics in Grades | 3 |
|  | $7-10$ <br> Plus <br> Mathematics Education | 6 |

Mathematics Education: 6 additional credits in mathematics education to be selected in consultation with the program coordinator

| III. Practicum (5-6) |  | $1-3$ |
| :---: | :--- | ---: |
| ESC 595 | Internship in Classroom <br> Teaching |  |
| ESC 612 | And <br> Seminar in Secondary Student <br> Teaching | 3 |
| ESC 596 | Or |  |
| Student Teaching in the Middle |  |  |
| ESC 612 | and High School Grades <br> And <br> Seminar in Secondary Student | 3 |
|  | Teaching | 3 |
|  |  |  |

## Science Education M.S.Ed. Program

This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.
To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:
Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.

Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.

Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.

## Science Education Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
3. Submission of scores on the Content Specialty Test (CST).
4. For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.
5. For Sequence 2 and 3 admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
6. Satisfy appropriate voice, speech, and health standards.
7. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
8. Personal interview.

## Science Education Degree Requirements

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

## Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

## Sequence 1 (33-36 credits)

| Core Education Sequence (3-6 credits): |  |  |
| :--- | :--- | :--- |
| ESC 529/EDR | Language and Literacies | 3 |
| 529/ESC 529 | Acquisition in Secondary <br>  <br> ESC 519 | Education |
|  | Teaching Science in Middle <br> and High School | 3 |

ESC 519: Candidates may also be required to take based on the Program Coordinator's assessment of prior experience and qualification.

| Curriculum and Instruction (12 credits): |  |
| :---: | :---: |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings |
| ESC 755 | Teaching the Historical Development of Science Or |
| ESC 595 | Internship in Classroom <br> Teaching <br> And |
| ESC 611 | Teaching Internship Seminar in Secondary Education |
| ESC 767 | The Museum as a Resource for Teaching Science |
| ESC 770 | Methods of Teaching Science in Secondary Schools: Selected Topics |

ESC 767: Or equivalent.

| Research and Culmination Projects (6 credits): |  |  |
| :---: | :---: | :---: |
| ESC 705 | Methods of Educational | 3 |
|  | Research |  |
| ESC 706 | Project Seminar I | 1 |
| ESC 707 | Project Seminar II | 2 |
|  | Or |  |
| ESC 705 | Methods of Educational | 3 |
|  | Research |  |
|  | And |  |
| ESC 708 | Project Seminar in Curriculum, | 3 |
|  | Materials, and Assessment in |  |
|  | Specialized Areas |  |

## Graduate Science Content (12 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

## Biology:

BIO 501 Topics in Genetics 4

BIO 502
Topics in Economic Botany

## Chemistry:

CHE 542
CHE 544
CHE 548

Geology:
GEO 501 Earth Processes 3
GEO 502 Earth History 3

| GEO 503 | Geologic Field Methods |
| :---: | :--- |
| AST 601 | Astronomy of Solar Systems |
| Physics: |  |
| PHY 601 | Advanced General Physics |
| PHY 605 | Physics for Teachers |
| AST 601 | Astronomy of Solar Systems |
| AST 602 | Stellar Astronomy |

Sequence 2 (42-48 credits)

| Core Education Sequence (18 credits): |  |
| :---: | :---: |
| ESC 501 | Psychological Foundations of Education |
| ESC 502 | Historical Foundations of Education: A Multicultural Perspective |
| ESC 519 | Teaching Science in Middle and High School |
| ESC 529/EDR | Language and Literacies |
| 529/ESC 529 | Acquisition in Secondary Education |
| ESC 596 | Student Teaching in the Middle and High School Grades |
| ESC 612 | Seminar in Secondary Student Teaching |
| Curriculum and Instruction (12 credits): |  |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings |
| ESC 755 | Teaching the Historical Development of Science |
| ESC 767 | The Museum as a Resource for Teaching Science |
| ESC 770 | Methods of Teaching Science in Secondary Schools: Selected Topics |

ESC 767 or Equivalent
Research and Culmination Projects ( 6 credits):
ESC $705 \quad$ Methods of Educational
ESC $706 \quad$ Project Seminar I 1

ESC $707 \quad$ Project Seminar II 2
ESC $705 \quad$ Methods of Educational 3

ESC 708 Project Seminar in Curriculum,
Materials, and Assessment in Specialized Areas
Graduate Science Content (6-12 credits):
Science content course requirements must align with undergraduate science preparation and with intended
certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

| Biology: |  |  |
| :---: | :--- | :--- |
| BIO 501 | Topics in Genetics |  |
| BIO 502 | Topics in Economic Botany | 4 |
| Chemistry: |  | 4 |
| CHE 542 | Advanced Inorganic Chemistry | 3 |
| CHE 544 | Biochemistry | 3 |
| CHE 548 | Special Topics in Modern | 3 |
|  | Organic Chemistry |  |
| Geology: |  | 3 |
| GEO 501 | Earth Processes | 3 |
| GEO 502 | Earth History | 3 |
| GEO 503 | Geologic Field Methods | 3 |
| AST 601 | Astronomy of Solar Systems | 4 |
| Physics: |  |  |
| PHY 601 | Advanced General Physics | 3 |
| PHY 605 | Physics for Teachers | 4 |
| AST 601 | Astronomy of Solar Systems | 4 |
| AST 602 | Stellar Astronomy | 4 |

## Sequence 3 (34-36 credits)

Core Education Sequence ( 13 credits):

| ESC 501 | Psychological Foundations of <br> Education | 3 |
| :--- | :--- | ---: |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural <br> Perspective | 3 |
| ESC 519 | Teaching Science in Middle and | 3 |
| ESC 789 | High School <br> Independent Study in Curriculum | $1-3$ |
| ESC 612 | Development <br> Seminar in Secondary Student <br> Teaching | 3 |

Curriculum and Instruction (12 credits): ESC 506

Special Needs Education in TESOL and Secondary Settings ESC 536 Teaching Technology Subjects in Middle and High School The Museum as a Resource for 3 Teaching Science
Methods of Teaching Science in 1-3
Secondary Schools: Selected Topics
ESC 767: Or equivalent.

| Research and Culmination Projects ( $\mathbf{3}$ credits): |  |
| :---: | :--- |
| ESC 705 | Methods of Educational <br>  <br> Research |

## Graduate Science Content (6-8 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Biology:

BIO 611
BIO 612
Chemistry:
CHE 542
CHE 544
CHE 548

Geology:

| GEO 501 | Earth Processes | 3 |
| :--- | :--- | :--- |
| GEO 502 | Earth History | 3 |

GEO 503
Problems in Microbiology
3
Plant Growth and Development 4

Physics:
PHY 601
AST 601
AST 602

## General Science:

GEO 501
PHY 601
Advanced Inorganic Chemistry

## Science Education Advanced Certificate (24 Credits)

This program is designed for candidates who already have a bachelor's and a master's degree in Biology, Chemistry, Geology, or Physics and who seek New York State Certification in one of the following content areas: Biology, Chemistry, Earth Science, and Physics, Grades 7-12.

## Program Requirements

Students must consult with an adviser in the Science Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with a Science Education adviser. All students must complete the 24 -credit curriculum below. In order to be recommended for NYS certification at the completion of the Certificate Program, candidates must pass the Educating All Students (EAS), Teacher Performance Assessment (edTPA), and the CST in one of the sciences, and meet any additional New York State requirements.

## Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university that meets New York State's requirements for a general education core in liberal arts and sciences.
2. Possess an approved master's degree in an appropriate content area. Have completed a minimum of 36 credits in biology, chemistry, geology, or physics.
3. Demonstrate the ability to pursue graduate study successfully by having a master's Grade Point Average of 3.0 or better.
4. Satisfy the content requirements for New York State initial certification.
5. Submit scores on the NYS Content Specialty Test (CST.)
6. Submit two (2) letters of recommendation and a 500 -word essay on career goals.
7. Participate in an interview.
8. Meet additional Departmental, divisional, and New York State requirements, if any.
9. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
10. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

## Curriculum

The 24-credit certificate curriculum consists of two instructional areas:

| I. Core Education Sequence (15 credits): |  |  |
| :---: | :---: | :---: |
| ESC 501 | Psychological Foundations of Education | 3 |
| ESC 502 | Historical Foundations of Education: A Multicultural Perspective | 3 |
| ESC 529/EDR | Language and Literacies | 3 |
| 529/ESC 529 | Acquisition in Secondary Education |  |
| ESC 596 | Student Teaching in the Middle and High School Grades And | 3 |
| ESC 612 | Seminar in Secondary Student Teaching | 3 |
| II. Methods, Curriculum, and Instruction (9 credits): |  |  |
| ESC 519 | Teaching Science in Middle and High School | 3 |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings | 3 |

And 3 additional credits to be selected in consultation with the Program Coordinator from the following courses:

| ESC 767 | The Museum as a Resource for | 3 |
| :--- | :--- | ---: |
| ESC 770 | Teaching Science |  |
|  | Methods of Teaching Science in <br> Secondary Schools: Selected | $1-3$ |
|  | Topics |  |

ESC 767: Or equivalent.

## Social Studies Education M.A. Program

This program offers three sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12. Sequences 1 and 2 lead to Initial Certification for candidates looking to begin or resume an education certification progression. Sequence 3 is for candidates who already earned Initial Certification and are seeking Professional Certification.

## Social Studies Education Admission Requirements:

Social Studies Education Admission Requirements:

- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- If conditionally accepted, must earn minimum 3.0 in courses designated by the Program Coordinator.
- If conditionally accepted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequence 3, present evidence of NYS teacher certification in Social Studies Education 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Candidates must schedule an interview with the Social

Studies Program Coordinator that includes a transcript review.

- Two letters of recommendation.
- 500-word application essay on interest in the program as it relates to long-term career goals.


## Degree Requirements

Prerequisite Content Core:
All candidates must satisfy the following prerequisite areas of
study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to or after commencement of graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Lehman undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

- Anthropology
- Sociology
- Geography
- Political science
- Economics
- Psychology
- Two history survey courses, one in U.S. history and one in European or world history.


## Sequence 1: (41-42 credits)

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who lack core education requirements and seek initial certification in Social Studies Education grades 7-12.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506(3).
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3) or Teaching Internship for Current Teachers-of-Record (3 credits): ESC 595 (2) and ESC 612 (3)

| ESC 501 | Psychological Foundations of <br> Education | 3 |
| :--- | :--- | :--- |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural <br> Perspective | 3 |
| ESC 529/EDR | Language and Literacies <br> Acquisition in Secondary <br> Edacation | 3 |
| ESC 506 | Educat Needs Education in <br> Special <br> ESC 533 | TESOL and Secondary Settings <br> Teaching World History in |
| ESC 534 | Middle and High School <br> Teaching U.S. History and | 3 |
| HIW 533 | Government <br> World History and | 3 |
|  | Historiography | 3 |


| HIU 534 | U.S. History and <br> Historiography | 3 |
| :--- | :--- | ---: |
| ESC 708 | Project Seminar in Curriculum, <br> Materials, and Assessment in | 3 |
| ESC 596 | Specialized Areas <br> Student Teaching in the Middle <br> and High School Grades | 3 |
| ESC 612 | Seminar in Secondary Student <br> Teaching | 3 |
| ESC 595 | Internship in Classroom | $1-3$ |
| ESC 612 | Teaching <br> Seminar in Secondary Student | 3 |
|  | Teaching |  |

## Sequence 2: (30 credits)

Candidates seeking initial certification who have met foundations core requirements.

- Pedagogical Core ( 6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

| ESC 533 | Teaching World History in <br> Middle and High School | 3 |
| :--- | :--- | ---: |
| ESC 534 | Teaching U.S. History and <br> Government | 3 |
| HIW 533 | World History and | 3 |
| HIU 534 | Historiography |  |
| ESC 708 | U.S. History and Historiography <br> Project Seminar in Curriculum, | 3 |
|  | Materials, and Assessment in | 3 |
| ESC 596 | Specialized Areas |  |
| ESC 612 | Student Teaching in the Middle <br> and High School Grades <br> Seminar in Secondary Student | 3 |
|  | Teaching | 3 |

## Sequence 3: (30 credits)

Candidates who already hold initial certification in Social Studies Education grades 7-12 and are seeking professional certification with a humanities focus

- Pedagogical Core (12 credits): four ESC teaching methods courses chosen in consultation with the adviser.
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.

[^1]| HIW 533 | World History and | 3 |
| :--- | :--- | :--- |
|  | Historiography |  |
| HIU 534 | U.S. History and Historiography | 3 |
| ESC 708 | Project Seminar in Curriculum, | 3 |
|  | Materials, and Assessment in |  |
|  | Specialized Areas |  |

## Additional Certification Requirements

In order to be recommended for initial certification in Social Studies Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), Teacher Performance Assessment (edTPA), and Social Studies CST; (c) complete the mandatory training in child abuse identification and reporting, violence prevention, and DASA, and (d) demonstrate successful completion of a liberal arts and sciences core. Please see adviser for more information.

In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 7-12, and must meet any additional New York State requirements.

Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:
(1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study or the Advanced Certificate;
(2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or
(3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English

## Social Studies Education Advanced Certificate (26-27 Credits)

## Social Studies Education Advanced Certificate Requirements

Students must consult with an adviser in the Social Studies Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with a Social Studies Education adviser. All students must complete the 26-27-credit curriculum below. The CST examination must be passed in order to take
the Social Studies teaching methods courses. In order to be recommended for certification, candidates must pass the remaining current certification examinations and complete the Social Studies Education Certificate with a 3.0 or better GPA, and meet any additional New York State requirements.

## Social Studies Education Advanced Certificate Admission Requirements

- Possess a bachelor's degree (or its equivalent) from an accredited college or university that meets New York State's requirements for a general education core in liberal arts and sciences.
- Possess a master's degree in an approved social studies content area.
- Have completed a minimum of 36 credits in history or in an approved social studies content area.
- Submit scores on the NYS Content Specialty Test (CST) in Social Studies.
- Demonstrate the ability to pursue graduate study successfully by having a master's Grade Point Average of 3.0 or better.
- Submit two (2) letters of recommendation and a 500 -word essay on career goals.
- Participate in an interview.
- Satisfy appropriate voice, speech, and health standards.
- Meet additional departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.


## Advanced Certificate in Social Studies Education (26-27 Credits)

The 26-27 credit certificate curriculum consists of three instructional areas.

| I.Foundations of Education (12): |  |  |
| :---: | :---: | :---: |
| ESC 501 | Psychological Foundations of Education | 3 |
| ESC 502 | Historical Foundations of Education: A Multicultural Perspective | 3 |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings |  |
| ESC 529/EDR | Language and Literacies |  |
| 529/ESC 529 | Acquisition in Secondary Education |  |

ESC 501, ESC 502, ESC 529: Require 25 hours of fieldwork each.

| II. Methods, Curriculum, and Instruction (9): |  |  |
| :---: | :--- | :--- |
| ESC 534 | Teaching U.S. History and <br> Government | 3 |
|  | Additional Credits | 6 |

Additional Credits: 6 additional credits to be selected in consultation with the Program Coordinator.

ESC 534: ESC 534 and all other Social Studies teaching methods courses include a combined total of 25 hours of fieldwork.

## III. Practicum (5-6):

| ESC 595 | Internship in Classroom | $1-3$ |
| :--- | :--- | ---: |
|  | Teaching |  |
| ESC 596 | Or | Student Teaching in the Middle <br> and High School Grades |
|  | and |  |

ESC 595: Teaching Internship for in-service teachers and will include a weekly seminar, ESC 612: Seminar in Secondary Student Teaching 3.

ESC 596: Student Teaching will be taken by pre-service teachers and will include a weekly seminar, ESC 612: Seminar in Secondary Student Teaching 3.

## Teaching English to Speakers of Other Languages M.S.Ed. Program (TESOL)

This program is designed for students seeking a master's degree in Teaching English to Speakers of Other Languages (TESOL). It can also provide initial New York State certification in English to Speakers of Other Languages (ESOL) for teachers (Pre-K-Grade 12), or additional ESOL certification for those already certified. Holders of this master's degree can obtain professional certification in ESOL upon completion of additional requirements. Applicants will apply for one of the following 5 sequences based on their qualifications:
Sequence 1 (30 credits). Students who already possess New York State certification and who seek additional certification as teachers of ESOL Pre-K-grade 12.
Sequence 2 (39-42 credits). Liberal arts and sciences graduates who lack education courses and who seek initial certification in ESOL Pre-K-grade 12.

Sequence 3 (30-33 credits). Teachers and prospective teachers of adult education and others who desire advanced study in TESOL but are not seeking Pre-K-grade 12 certification.
Sequence 4 ( 30 credits). Liberal arts and sciences graduates who have met requirements for linguistics, general education, and special education through prior coursework and who seek certification in ESOL Pre-K-grade 12.

Sequence 5 (36 credits). Teachers who hold a valid Transitional B certificate in ESOL from New York State.

## TESOL Admission Requirements

## Admission Requirements

1. Possess a bachelor's degree (or its equivalent) with an overall index of 3.0 or better, and a liberal arts and sciences major of at least 30 credits from an accredited college or university. In order to be recommended by Lehman College for ESOL certification, candidates must have successfully completed a liberal arts and sciences core specific to ESOL teachers (see "Additional Requirements for Initial and Professional Certification in ESOL" below).
2. For Sequence 1, possess New York State teacher certification and meet minimum requirements in special education. For Sequence 5, hold a valid New York State Transitional B certificate in ESOL.
3. Submit Graduate Record Examination (GRE) scores.
4. For Sequence 4, meet with the advisor prior to applying for matriculation to determine eligibility. Prior coursework must be completed with a B or better.
5. Demonstrate the study of a language and culture other than English ( 12 credits) or an equivalent experience.
6. Submit two (2) letters of recommendation and a 500 -word essay on career goals.
7. Participate in an interview that requires producing a writing sample in English.
8. If the undergraduate degree was earned in a language other than English, submit TOEFL scores (minimum):

- Overall: Paper-based: 600; Computer-based: 250; Internetbased (IBT): 75, not counting the Speaking subscore.
- Writing subscore: Paper-based: 5.0; IBT: 24
- Speaking subscore: Paper-based: 50; IBT: 26

9. Satisfy appropriate voice, speech, and health standards.
10. Meet any additional department, Lehman College School of Education, or New York State requirements.
11. Meet any additional requirements for admission in the first three semesters of matriculation.

## TESOL Degree Requirements

Students must consult with an adviser in the TESOL program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an advisor in the TESOL program. All students will complete the curriculum corresponding to one of the sequences below: 30 credits (Sequence 1); 39-42 credits (Sequence 2); 30-33 credits (Sequence 3); 30 credits (Sequence 4); or 36 credits (Sequence 5). All courses must be
selected in consultation with, and with the approval of, an advisor in TESOL.

Nota Bene: The practicum (ESC 797 or 798 ) requires a preapplication the semester prior to enrollment. Candidates are required to submit scores on the EAS exam (Sequence 2, 4 only) and the ESOL CST (Sequences 1, 2, 4, 5).

## Curriculum: Sequence 1 ( $\mathbf{3 0}$ credits):

The 30-credit curriculum for Sequence 1 consists of five instructional areas.


## Cultural Perspectives (3):

ESC 769 Latinos in U.S. Schools
ESC 769: Or another course in cultural perspectives selected in consultation with the adviser.

| Methods, Materials, and Evaluation (9): |  |  |
| :---: | :--- | :---: |
| ESC 727 | Teaching English as a Second <br> Language (Pre-K to Grade 6) | 3 |
| ESC 761 | Teaching English as a New <br> ESC 766 | Language, grades 5-12 <br> Teaching English as a New <br> Language Through the Content <br> Areas |
| Practicum (3): | Teaching Internship in TESOL | 3 |
| ESC 797 | Teaching Internship Seminar in <br> ESC 611 | Secondary Education |
|  |  |  |


| Master's Project (3): |  |  |
| :---: | :--- | :--- |
| ESC 708 | Project Seminar in Curriculum, | 3 |
|  | Materials, and Assessment in |  |
|  | Specialized Areas |  |

ESC 708: Culminates in an approved curriculum project.

## Curriculum: Sequence 2 (39-42 credits):

The 39-42 credit curriculum for Sequence 2 consists of six instructional areas.

Foundations (9):
ESC 501

ESC 502 Historical Foundations of

ESC 506

Education: A Multicultural
Perspective
Psychological Foundations of

TESOL and Secondary Settings

| Language Education (12): |  |
| :---: | :--- |
| ESC 757 | Linguistics for TESOL/Bilingual |
|  | Teachers |
| ESC 725 | Teaching English Grammar |
| ESC 759 | Foundations of <br> Eilingual/Bicultural Education <br> ESC 760Second-Language Learning and <br>  <br> Teaching |

Cultural Perspectives (3):
ESC 769 Latinos in U.S. Schools 3
ESC 769: Or another course in cultural perspectives selected in consultation with the adviser.

| Methods, Materials, and Evaluation (9): |  |
| :---: | :---: |
| ESC 727 | Teaching English as a Second Language (Pre-K to Grade 6) |
| ESC 761 | Teaching English as a New Language, grades 5-12 |
| ESC 766 | Teaching English as a New Language Through the Content Areas |
| Practicum (3-6): |  |
| ESC 797 | Teaching Internship in TESOL And |
| ESC 609 | Teaching Internship Seminar in TESOL <br> Or |
| ESC 798 | Student Teaching in TESOL And |
| ESC 610 | Student Teaching Seminar in TESOL |
| Master's Project (3): |  |
| ESC 708 | Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas |

ESC 708: Culminates in an approved curriculum project.

## Curriculum: Sequence 3 ( 33 credits):

The 30-33 credit curriculum for Sequence 3 consists of six instructional areas.

## Foundations (6):

ESC 501
Psychological Foundations of Education
ESC 502
Historical Foundations of Education: A Multicultural Perspective
TESOL Electives
TESOL Electives: 3-6 credits of TESOL electives selected in consultation with the adviser.
Language Education (9):

| ESC 757 | Linguistics for TESOL/Bilingual | 3 |
| :--- | :--- | :--- |
|  | Teachers |  |
| ESC 725 | Teaching English Grammar | 3 |
| ESC 760 | Second-Language Learning and | 3 |
|  | Teaching |  |

## Cultural Perspectives (3):

ESC 769 Latinos in U.S. Schools 3

ESC 769: Or another course in cultural perspectives selected in consultation with the adviser.

| Methods, Materials, and Evaluation (6): |  |  |
| :---: | :---: | :---: |
| ESC 761 | Teaching English as a New | 3 |
| ESC 766 | Language, grades 5-12 |  |
|  | Teaching English as a New | 3 |
|  | Language Through the Content |  |
|  | Areas |  |
| Practicum (3-6): |  |  |
| ESC 797 | Teaching Internship in TESOL | 2 |
|  | And |  |
| ESC 609 | Teaching Internship Seminar in | 1 |
|  | TESOL |  |
|  | Or |  |
| ESC 798 | Student Teaching in TESOL | 3 |
|  | And |  |
| ESC 610 | Student Teaching Seminar in | 3 |
|  | TESOL |  |
| Master's Project (3): |  |  |
| ESC 708 | Project Seminar in Curriculum, | 3 |
|  | Materials, and Assessment in |  |
|  | Specialized Areas |  |

ESC 708: Culminates in an approved curriculum project.

## Curriculum: Sequence 4 ( $\mathbf{3 0}$ credits):

The 30 -credit curriculum for Sequence 4 consists of five instructional areas.

| Language Education (9): |  |  |
| :--- | :--- | :--- |
| ESC 725 | Teaching English Grammar | 3 |
| ESC 759 | Foundations of |  |
|  | Bilingual/Bicultural Education | 3 |
| ESC 760 | Second-Language Learning and <br>  | 3 |
|  | Teaching |  |

## Cultural Perspectives (3):

ESC 769 Latinos in U.S. Schools
3
ESC 769: Or another course in cultural perspectives selected in consultation with the adviser.

| Methods, Materials, and Evaluation (9): |  |  |
| :---: | :--- | :--- |
| ESC 727 | Teaching English as a Second <br> Language (Pre-K to Grade 6) | 3 |
| ESC 761 | Teaching English as a New <br> Language, grades 5-12 | 3 |
| ESC 766 | Teaching English as a New | 3 |

 Materials, and Assessment in Specialized Areas

ESC 708: Culminates in an approved curriculum project.
Additional Requirements for Initial and Professional Certification in TESOL and ESOL are as follows:

In order to be recommended for initial certification in English to Speakers of Other Languages (ESOL) Pre-K-grade 12, students must:
(a) complete the master's degree (Sequences 1, 2, 4 or 5) with a cumulative index of 3.0 or better;
(b) present passing scores on the following New York State examinations: Educating All Students (EAS), Teacher Performance Assessment (edTPA), and ESOL CST (teachers already NYS-certified in another field only present passing scores on the ESOL CST); and
(c) demonstrate successful completion of a liberal arts and sciences core specific to ESOL teachers. Please see adviser for more information.

In order to qualify for professional certification in ESOL, in addition to the master's degree (Sequences 1, 2, 4 or 5), teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school which serves Pre-K-grade 12, and must meet any additional New York State requirements.

## Teaching English to Speakers of Other Languages (TESOL) Advanced Certificate

This program is designed for students who already have a master's degree, who possess New York State teacher certification, and who seek additional New York State certification in teaching English to Speakers of Other languages (ESOL) Pre-K-grade 12.

## TESOL Certificate Admission Requirements

1. Possess a bachelor's degree (or its equivalent) with an overall index of 3.0 or better, and a liberal arts and sciences major of at least 30 credits from an accredited college or university. In order to be recommended by Lehman College for ESOL certification, candidates must have successfully completed a liberal arts and sciences core specific to ESOL teachers (see "Additional Requirements for Initial and Professional Certification in ESOL" below).
2. New York State teacher certification.
3. A master's degree appropriate for New York State professional certification.
4. Successful completion of minimum requirements in special education.
5. Demonstrate the study of a language other than English (12 credits) or an equivalent experience.
6. The study of cultural perspectives of one or more ESL populations (at least 3 credits).
7. Two (2) letters of recommendation and a 500 -word essay on career goals.
8. Participate in an interview, which requires producing a writing sample in English.
9. Satisfy appropriate voice, speech, and health standards.
10. Meet additional Departmental, divisional, and New York State requirements, if any.
11. Meet any additional requirements for admission in the first three semesters of matriculation.
12. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

## TESOL Certificate Requirements

Students must consult with an advisor in the TESOL program before starting their certificate program. During their first semester, matriculated students are required to plan their program with a TESOL adviser. All students must complete the 21-credit curriculum below.
In order to be recommended for ESOL certification, candidates must (a) complete the Advanced Certificate: TESOL program with a cumulative index of 3.0 or better, (b) present passing scores on the ESOL Content Specialty Test (CST), (c) demonstrate successful completion of a liberal arts and sciences core specific to TESOL teachers (please see adviser for more information), and (d) meet any additional New York State requirements.

## TESOL Certificate Curriculum

The 21-credit certificate curriculum consists of three instructional areas:
Language Education (12):

| ESC 757 | Linguistics for TESOL/Bilingual <br> Teachers |
| :--- | :--- |
| ESC 759 | Foundations of <br> Bilingual/Bicultural Education <br> ESC 760 |
| Second-Language Learning and <br> Teaching |  |
| ESC 725 | Teaching English Grammar |

Methods, Materials, and Evaluation (6):
ESC 727 Teaching English as a Second Language (Pre-K to Grade 6) Or
ESC 761 Teaching English as a New Language, grades 5-12

## And

ESC $766 \quad$ Teaching English as a New Language Through the Content Areas
Practicum (3):
ESC 797
Teaching Internship in TESOL

Teaching Internship Seminar in 1 TESOL

## Teaching Spanish 7-12 M.A.

This program is designed for candidates seeking a Master's degree in Teaching Spanish. Graduates of this program are eligible for New York State Certification in Teaching Spanish grades 7-12 upon completion of additional New York State Education Requirements. Applicants will apply to one of the 2 following sequences based on their qualifications:
Sequence 1 (36-39 credits). Candidates who seek initial New York State certification in Teaching Spanish grades 7-12
Sequence 2 ( 36 credits). Transitional B candidates who seek initial New York State certification in Teaching Spanish grades 7-12

## Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher. In order to be recommended by Lehman College for certification in Teaching Spanish, candidates must have completed a core of liberal arts/sciences courses in addition to their major (see adviser for details).
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. Submit scores from the Spanish Content Specialty Test (CST).
5. If conditionally admitted, meet conditions starting in the first semester and finishing in no more than three consecutive semesters.
6. For Sequence 2, be eligible for a valid New York State Transitional B certificate in Teaching Spanish grades 7-12.
7. Two letters of recommendation.
8. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
9. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.
10. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

## Degree Requirements

Students must consult with an adviser in the M.A. Teaching Spanish program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum corresponding to one of the two sequences below.
Sequence 1 (36-39 crs.). Candidates who seek initial New York State certification in Spanish grades 7-12

| Educational Foundations (12 crs.) |  |  |
| :---: | :---: | :---: |
| ESC 501 | Psychological Foundations of Education | 3 |
| ESC 502 | Historical Foundations of Education: A Multicultural Perspective | 3 |
| ESC 529/EDR | Language and Literacies |  |
| 529/ESC 529 | Acquisition in Secondary Education |  |
| ESC 506 | Special Needs Education in TESOL and Secondary Settings | 3 |
| Methods of Teaching Spanish (6 crs.) |  |  |
| ESC 524 | Teaching Foreign Language in Middle and High School |  |
| ESC 562 | Teaching Language Arts in Languages Other than English |  |
| Spanish Language, Literature, and Culture (15 crs.) |  |  |
| SPA 601 | Hispanic Linguistics | 3 |
| SPA 618 | Spanish Dialectology and Sociolinguistics | 3 |
| SPA 619 | Hispanic Culture |  |
|  | Electives |  |

Electives: 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Student Teaching or Teaching Internship and Seminar (36 crs .)

Teaching Internship for full-time Spanish teachers:
ESC 595 Internship in Classroom 1-3

ESC 611 Teaching Internship Seminar in Secondary Education
Or Student Teaching in Spanish:

| ESC 596 | Student Teaching in the Middle <br> and High School Grades | 3 |
| :--- | :--- | :--- |
| ESC 612 | Seminar in Secondary Student <br> Teaching | 3 |

Sequence 2 ( 36 crs.) Transitional B candidates who seek initial New York State certification in Spanish grades 7-12

Educational Foundations ( $\mathbf{1 2} \mathbf{~ c r s}$.)

ESC 501
ESC 502

ESC 529/EDR
529/ESC 529

ESC 506

Methods of Teaching Spanish ( 6 crs.)
ESC 524 Teaching Foreign Language in
Middle and High School
ESC 562 Teaching Language Arts in Languages Other than English

Spanish Language, Literature, and Culture (15 crs.)
SPA 601 Hispanic Linguistics 3

SPA 618 Spanish Dialectology and Sociolinguistics
SPA $619 \quad$ Hispanic Culture Electives

Electives: 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Teaching Internship
ESC 595
Internship in Classroom
Teaching
ESC 611 Teaching Internship Seminar in 1 Secondary Education

In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

## Additional Requirements for Certification in Teaching

 Spanish 7-12:In order to be recommended for Initial Certification in teaching Spanish 7-12, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details); (b) for candidates seeking initial certification, present passing scores on the following New York State examinations: EAS, edTPA and Spanish Content Specialty Test; for candidates certified prior to April 30, 2014, present passing scores only on the Spanish Content Specialty Test; and (c) meet any additional New York State requirements.

In order to qualify for Professional Certification in teaching Spanish 7-12, candidates must successfully complete the master's program, must have completed three years of fulltime teaching in a public or private school which serves grades 7-12, and must meet any additional New York State requirements.

Qualified Teaching Spanish 7-12 candidates may also apply to the Advanced Certificate: Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study.

## Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

## Teachers of Languages Other than English (LOTE) Advanced Certificate (21-24 Credits)

This program is designed for candidates who already have a master's degree in a language other than English and who seek New York State Certification in the teaching of Languages Other than English (LOTE) grades 7-12.

## Teachers of Languages Other Than English Advanced Certificate Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university that meets the State's requirements for a general education core in the liberal arts and sciences.
- Master's degree in a language other than English.
- Demonstrate the ability to successfully pursue graduate study by having a master's Grade Point Average (GPA) of 3.0 or better.
- Satisfy the content requirements for New York State Initial Certification in education in a language other than English, grades 7-12.
- Submit scores from the Spanish Content Specialty Test (CST).
- Submit two (2) letters of recommendation and a 500 -word essay on career goals.
- Participate in an interview.
- Satisfy appropriate voice, speech, and health standards.
- Meet additional Departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, meets conditions starting in the first semester and finishing in no more than three consecutive semesters.
- Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency

Interview (OPI). Candidates who do no score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 9 credits.

## Teachers of Languages Other Than English Advanced

 Certificate RequirementsStudents must consult with the adviser in the Advanced Certificate: Teaching Languages Other Than English (LOTE) Program before starting their certificate program. During their first semester, matriculated students are required to plan their program with the LOTE Education Program Adviser. All students must complete the 15 -credit curriculum below.
In order to be recommended for certification, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details), (b) pass the EAS, edTPA and Spanish Content Specialty Test (CST), (c) complete the Advanced Certificate: Teaching Languages Other Than English Program with a cumulative index of 3.0 or better, and (d) meet any additional New York State requirements.

Teachers of Languages Other Than English Advanced Certificate Curriculum
The 21-24-credit certificate curriculum consists of three instructional areas:

| I. Foundations of Education (12 credits) |  |  |
| :---: | :--- | ---: |
| ESC 501 | Psychological Foundations of <br> Education | 3 |
| ESC 502 | Historical Foundations of <br> Education: A Multicultural <br> Perspective | 3 |
| ESC 529/EDR | Language and Literacies <br> Acquisition in Secondary <br> Education | 3 |
| ESC 506 529 | Special Needs Education in <br> TESOL and Secondary Settings | 3 |
| II. Methods, Curriculum, and Instruction (6 credits) |  |  |
| ESC 524 | Teaching Foreign Language in <br> Middle and High School | 3 |
| ESC 562 | Teaching Language Arts in <br> Languages Other than English | 3 |

## III. Student Teaching or Teaching Internship and Seminar (3-6 crs.)

Teaching Internship for full-time Spanish teachers: ESC 595

ESC 611 Teaching Internship Seminar in

Or Student Teaching in Spanish:
ESC 596

Secondary Education

Student Teaching in the Middle
3
and High School Grades

## Bilingual Extension Advanced Certificate

This program is designed for Birth to Grade 12 teachers, who already possess New York State certification in the areas listed in Sequences 1-4 below, and who seek a bilingual extension to teach that subject in the native language as well as in English. Applicants for the Advanced Certificate: Bilingual Extension include:

Sequence 1 ( $\mathbf{1 2}$ credits): Those seeking a bilingual extension to New York State certification in early childhood education, childhood education, or Literacy Birth-grade 6 at the early childhood or childhood level.

Sequence 2 ( 15 credits): Those seeking a bilingual extension to New York State certification in teaching children with disabilities at the early childhood or childhood level.
Sequence 3 ( 12 credits): Those seeking a bilingual extension to New York State certification in middle childhood education, adolescence education, or Literacy grades 5-12 at the middle childhood or adolescence education level.

Sequence 4 ( 15 credits): Those seeking a bilingual extension to New York State certification in teaching children with disabilities at the middle childhood or adolescence education level.

## Bilingual Extension Advanced Certificate Admission Requirements

- Possess a bachelor's degree (or its equivalent) from an accredited college or university.
- For Sequence 1, possess New York State certification in early childhood education, childhood education, or literacy Birth-grade 6 at the early childhood or childhood level.
- For Sequence 2, possess New York State certification in teaching children with disabilities at the early childhood or childhood level.
- For Sequence 3, possess New York State certification in middle childhood education, adolescence education, or literacy grades 5-12 at the middle childhood or adolescence education level.
- For Sequence 4, possess New York State certification in teaching children with disabilities at the middle childhood or adolescence education level.
- Demonstrate the ability to pursue graduate study successfully by having an undergraduate index of B or a master's degree.
- Demonstrate the study of a language and culture other than English ( 12 credits) or an equivalent experience.
- Demonstrate the study of cultural perspectives of one or more bilingual populations (at least 3 credits). Candidates
may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.
- Submit one (1) letter of recommendation.
- Participate in an interview which requires producing a writing sample in English and in the native language.
- Satisfy appropriate voice, speech, and hearing standards.
- Meet additional departmental admission requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.


## Bilingual Extension Advanced Certificate Requirements

Students must consult with an adviser in the Advanced Certificate: Bilingual Extension program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. To successfully complete the program, students must complete the curriculum as outlined below for Sequence 1 (12 credits), 2 ( 15 credits), 3 ( 12 credits), or 4 ( 15 credits).
New York State also requires candidates for the bilingual extension to pass the Bilingual Education Assessment (BEA). We expect our students to pass this exam before completing nine (9) program credits or the first two semesters of matriculation.

## Overview of the Bilingual Extension Advanced Certificate Program

## Sequence 1: (12)

Bilingual Extension: Early Childhood/Childhood General Education:

ESC 759

ESC 727

EDE 738

EDE 739

Foundations of
Bilingual/Bicultural Education
Teaching English as a Second
Language (Pre-K to Grade 6)
Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6
Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6

## Sequence 2: (15)

Bilingual Extension: Early Childhood/Childhood Special Education:
ESC 759

ESC 727

EDE 738

Foundations of Bilingual/Bicultural Education Teaching English as a Second Language (Pre-K to Grade 6) Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6

Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6
Psycho-educational Evaluation of
Bilingual Children with Mild to
Moderate Learning and Behavior Problems

## Sequence 3: (12)

Bilingual Extension: Middle and High School General Education:

| ESC 757 | Linguistics for TESOL/Bilingual <br> Teachers |
| :---: | :--- |
| ESC 759 | Foundations of <br> Bilingual/Bicultural Education <br> ESC 761 |
| ESC 763 | Teaching English as a New <br> Language, grades 5-12 <br> Teaching Secondary Bilingual <br> Language Arts and Content <br> Literacy |

## Sequence 4: (15)

Bilingual Extension: Middle and High School Special Education:
ESC 757
Linguistics for TESOL/Bilingual
Teachers
ESC $759 \quad$ Foundations of
Bilingual/Bicultural Education
ESC 761 Teaching English as a New
Language, grades 5-12
ESC 763 Teaching Secondary Bilingual
Language Arts and Content Literacy
EBS 741
Psycho-educational Evaluation of Bilingual Children with Mild to Moderate Learning and Behavior Problems

## Bilingual Extension Advanced Certificate Intensive Teacher Institute

This program is designed for Birth-grade 12 teachers who already possess New York State certification in the areas listed in Sequences 1-4 below, and who seek a bilingual extension to teach that subject in the native language as well as in English. The Advanced Certificate: Bilingual Extension consists of four sequences:

- Sequence 1 ( 12 credits): For candidates seeking a bilingual extension to New York State certification in early childhood education, childhood education, or Literacy Birth-grade 6 at the early childhood or childhood level.
- Sequence 2 ( 15 credits): For candidates seeking a bilingual extension to New York State certification in teaching
children with disabilities at the early childhood or childhood level.
- Sequence 3 ( 12 credits): For candidates seeking a bilingual extension to New York State certification in middle childhood education, adolescence education, or Literacy grades 5-12 at the middle childhood or adolescence education level.
- Sequence 4 ( 15 credits): For candidates seeking a bilingual extension to New York State certification in teaching children with disabilities at the middle childhood or adolescence education level.


## Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university.
2. For Sequence 1, possess New York State certification in early childhood education, childhood education, or literacy Birth-grade 6 at the early childhood or childhood level
3. For Sequence 2, possess New York State certification in teaching children with disabilities at the early childhood or childhood level.
4. For Sequence 3, possess New York State certification in middle childhood education, adolescence education, or literacy grades 5-12 at the middle childhood or adolescence education level.
5. For Sequence 4, possess New York State certification in teaching children with disabilities at the middle childhood or adolescence education level.
6. Demonstrate the ability to pursue graduate study successfully by having an undergraduate index of B or a master's degree.
7. Demonstrate the study of a language and culture other than English ( 12 credits) or an equivalent experience.
8. Submit one (1) letter of recommendation.
9. Demonstrate the study of cultural perspectives of one or more bilingual populations (at least 3 credits). Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.
10. Participate in an interview which requires producing a writing sample in English and in the native language.
11. Satisfy appropriate voice, speech, and hearing standards.
12. Meet additional departmental admission requirements, if any.
13. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

## Certificate Requirements

Students must consult with an adviser in the Advanced Certificate: Bilingual Extension program before beginning
their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. To successfully complete the program, students must complete the curriculum as outlined below for Sequence 1 (12 credits), 2 ( 15 credits), 3 ( 12 credits), or 4 ( 15 credits).

Candidates for the bilingual extension are expected to pass the Bilingual Education Assessment (BEA) before completing nine (9) program credits or the first two semesters of matriculation.

## Curriculum

Sequence 1: (12)
Bilingual Extension: Early Childhood/Childhood General Education
EBS 701
Issues in Bilingualism
EDE 727
EDE 738 Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6
EDE 739
Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6

## Sequence 2: (15)

Bilingual Extension: Early Childhood/Childhood Special Education
EBS 701
Issues in Bilingualism
EDE 727

EDE 738

EDE 739

EBS 741
Teaching English as a Second
Language (Pre-K to Grade 6)
Learning and Teaching Literacy in Bilingual/Bicultural Childhood
Settings: Grades 1 to 6
Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 Psycho-educational Evaluation of Bilingual Children with Mild to Moderate Learning and Behavior Problems

## Sequence 3: (12)

Bilingual Extension: Middle and High School General Education
ESC 757
Linguistics for TESOL/Bilingual Teachers
ESC 759

ESC 761
ESC 763

Foundations of Bilingual/Bicultural Education
Teaching English as a New Language, grades 5-12
Teaching Secondary Bilingual
Language Arts and Content Literacy

## Sequence 4: (15)

Bilingual Extension: Middle and High School Special Education
ESC 757 Linguistics for TESOL/Bilingual Teachers
ESC 759
ESC 761
ESC 763

EBS 741
degree requirements as well as any outstanding requirements at the undergraduate level*, along with the New York State Teaching Certification Exams (NYSTCE) and workshops**, they are eligible to apply for New York State Certification. Counseling is provided by the Graduate Advisers or Coordinators of the Department of Music and/or the School of Education.

To graduate, students must complete all degree requirements, including educational core courses, with an overall GPA of 3.0 or better. Students must complete any additional requirements, including pedagogical, content-area, and/or distribution courses, with the same $3.0+$ GPA.
*The N.Y.S. Department of Education provides guidelines for required undergraduate coursework.
**As of 2014, there are four required New York State Teaching Certification Exams (NYSTCE) and three workshops.

## Admission Requirements

To be admitted to the program, candidates must meet the following requirements:

- Have earned a bachelor's degree in music from an accredited institution.
- Demonstrate the ability to successfully pursue graduate study. Above-average academic achievement in general and music courses is required.
- Demonstrate, by audition, a professional level of performing ability. Auditions may be arranged by calling the Music Department at 718-960-8247.
- Have taken the following undergraduate courses or their equivalents: at least 12 credits in Music Theory and Musicianship and at least 12 credits in Music History or Ethnomusicology. Undergraduate deficiencies must be made up for no credit toward the M.A.T.
- Demonstrate, by examination, proficiency in music theory, history, and musicianship.
- If conditionally admitted, make up not more than 12 credits of specified undergraduate coursework, finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

Degree Requirements (39-42)
The program requires a minimum of 39-42 credits, including 18 credits in Music, 18 credits in Pedagogy, and either 3 or 6 credits for Practicum.

## I. Music Content (18)

With the approval of a graduate adviser, 18 credits will be chosen from the following:

| $\mathbf{3}$ credits in Music Theory: |  |  |
| :--- | :--- | :--- |
| MST 710 | Advanced Musical Analysis | 3 |
| MST 750 | Special Topics in Music Theory | 3 |

3 credits in Performance Studies:
MSH 700
Performance Practice from the
Baroque to the Present
MSP $750 \quad$ Special Topics in Music
Performance
6 credits in Musicology / Ethnomusicology:
MSH $750 \quad$ Special Topics in Music History 3
MSH 751 Topics in Ethnomusicology 3
3 credits in Music Pedagogy:
MSP $722 \quad$ Vocal Pedagogy 1

MSP 723 Secondary Instrument 1
Laboratory Ensemble I
MSP 724 Secondary Instrument
Laboratory-Ensemble II
3 credits in Electives:
MST 712
Music, Computers and
MST 730 Introduction to Music Therapy 3
MST $731 \quad$ Music and the Brain 3
MSP $760 \quad$ Piano for Music Teachers 3
MST $714 \quad$ Advanced Musicianship 2

## II. Pedagogical Core (18)

Students must complete the following courses (or equivalents) for 18 credits:

ESC $501 \quad$| Psychological Foundations of |
| :--- |
| Education |

ESC 506 Special Needs Education in 3 TESOL and Secondary Settings Or
EDS $701 \quad$ Understanding Individuals with 3 Disabilities

ESC 529/EDR Language and Literacies 3
529/ESC 529 Acquisition in Secondary Education
ESC 733 Teaching Music in the Middle 3 Schools
ESC $785 \quad$ Methods of Teaching Music in 3
the Secondary School and
Adult Education
EDE 755 Advanced Methods of Teaching

EDS 701: Or the equivalent.

## III. Practicum (3 or 6)

For the Practicum, students who are already working full time as music teachers will take:

Internship in Classroom
eaching Internship Seminar in Secondary Education

## Students who are not already working full time as music teachers will take:

ESC 596

ESC 612 Student Teaching in the Middle and High School Grades Seminar in Secondary Student 3 Teaching

## Nursing

Chair: Catherine Alicia Georges (Building T-3, Room 209)
Director of Graduate Studies: Eleanor Campbell
Department Faculty: Professors: Catherine Alicia Georges, Martha Velasco-Whetsell; Associate Professors: Eleanor Campbell, Cassandra Dobson, Linda Scheetz; Assistant Professors: Carole Baraldi, Claudette Gordon, Sheila Hankin, Brenda Hernandez-Acevedo, Mary Joseph, Gwendolyn Lancaster, Sandra Maldonado, Natasha Nurse-Clarke, Korto Scott, Mary G. Tesoro; Clinical Professors: Barbara Baldwin, Ivreen Robinson; Doctoral Lecturer: Carol Bues; Lecturers: Margaret Clifton, Theresa Lundy, Mary Mathew; Chief College Lab Technician: Marcia Brown; Emeritus Professors: Barbara Backer, Keville Frederickson, Beatrice Goodwin, Paulette Robischon

The Department of Nursing offers graduate programs leading to Masters degrees in Pediatric Nurse Practitioner and Family Nurse Practitioner as well as Post-Masters certificates in Pediatric Nurse Practitioner and Family Nurse Practitioner. Creative and individualized programs of study are used to meet academic requirements and career objectives of graduate nursing students. The program leads to a Master of Science degree and prepares nurses for advanced practice with a variety of clients in primary health care settings. Graduate nursing students attend classes and seminars on Lehman's campus in the Northwest Bronx. They also have access to selected graduate offerings in other units of the City University. Clinical experience is provided in a variety of settings throughout the metropolitan area and lower Westchester. These include hospitals, community health centers, and physician's offices, and other facilities where primary health care is provided. The Master of Science degree in nursing program at Lehman College is accredited by the Commission on Collegiate Nursing Education (http://www.ccneaccreditation.org).

## Nursing M.S. Program

## Admission Requirements

- Baccalaureate degree in nursing from ACEN or Commission on Collegiate Nursing Education (http://www.ccneaccreditation.org) accredited nursing program.
- Demonstrate the ability to successfully pursue graduate study, that is, have attained a minimum undergraduate grade average of B in Nursing and also a minimum grade average of $B$ in the undergraduate record as a whole.
- An unencumbered nursing license as a registered professional nurse and currently registered in New York State.
- At least one year working experience as a Registered Nurse.
- Names and addresses of two persons who can attest to the applicant's scholastic and/or professional performance. (it is preferred that one reference must be from a former instructor or academic adviser and the second from a recent employer or supervisor.)
- Interview with a member of the graduate curriculum committee.
- Submission of scores on the Graduate Record Examination (GRE) General Test.
- Submission of a one-page essay outlining career goals, intellectual and academic interests, and accomplishments related to the Master of Science degree in Nursing.
- All students must complete a graduate level statistics course and earn a grade of B (3.0) or better prior to matriculation.

The Curriculum Plan for a 45 -credit Master of Science degree in Family Nurse Practitioner and Pediatric Nurse Practitioner allows students to attend full- or part-time.

Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Pediatric Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Pediatric Nurse Practitioner.

## Pediatric Nurse Practitioner

Effective: Spring 2020

## Admission Requirements

- Baccalaureate degree in nursing from ACEN or Commission on Collegiate Nursing Education (http://www.ccneaccreditation.org) accredited nursing program.
- Demonstrate the ability to successfully pursue graduate study, that is, have attained a minimum undergraduate
grade average of B in Nursing and also a minimum grade average of $B$ in the undergraduate record as a whole.
- An unencumbered nursing license as a registered professional nurse and currently registered in New York State.
- At least one year working experience as a Registered Nurse.
- Names and addresses of two persons who can attest to the applicant's scholastic and/or professional performance. (it is preferred that one reference must be from a former instructor or academic adviser and the second from a recent employer or supervisor.)
- Interview with a member of the graduate curriculum committee.
- Submission of scores on the Graduate Record Examination (GRE) General Test.
- Submission of a one-page essay outlining career goals, intellectual and academic interests, and accomplishments related to the Master of Science degree in Nursing.
- All students must complete a graduate level statistics course and earn a grade of $B$ (3.0) or better prior to matriculation.

Master of Science in Pediatric Nurse Practitioner Curriculum

NUR 720
Concepts and Theories for Advanced Nursing Practice
NUR 721
NUR 723
NUR 726

NUR 766
NUR 767
NUR 769
NUR 773
NUR 770
NUR 771
NUR 772
NUR 787
Essentials of Clinical Research
Strategies for Advanced Nursing Practice

Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Pediatric Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Pediatric Nurse Practitioner.
Pediatric Nurse Practitioner MS Program Prior to Spring 2020

## Pediatric Nurse Practitioner Post-Masters Certificate

## Admission Requirements

- A master's degree in Nursing from an accredited college or university.
- Two (2) letters of recommendation.
- An interview with the director of the graduate program or his/her designee.
- Students must consult with an adviser in the Nursing Program before starting their certificate program. During their first semester, matriculated students are required to plan their program with an adviser. All students must complete the 30 -credit curriculum with a cumulative index of 3.0 or better.
The Certificate in Pediatric Nurse Practitioner program consists of a sequence of seven courses for a total of 30 credits as listed below:

| NUR 766 | Advanced Pathophysiology | 3 |
| :--- | :--- | :--- |
| NUR 767 | Advanced Pharmacology | 3 |
| NUR 769 | Family Developmental Theory | 3 |
| NUR 773 | Advanced Health Assessment | 3 |
| NUR 770 | Advanced Practice I | 6 |
| NUR 771 | Advanced Nursing Practice II | 6 |
| NUR 772 | Advanced Nursing Practice III | 6 |

Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Pediatric Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Pediatric Nurse Practitioner.
The Certificate in Pediatric Nurse Practitioner Program Prior to Spring 2019

For previous bulletins click here

## Family Nurse Practitioner

Effective: Spring 2020

## Admission Requirements

- Baccalaureate degree in nursing from ACEN or Commission on Collegiate Nursing Education (http://www.ccneaccreditation.org) accredited nursing program.
- Demonstrate the ability to successfully pursue graduate study, that is, have attained a minimum undergraduate grade average of B in Nursing and also a minimum grade average of $B$ in the undergraduate record as a whole.
- An unencumbered nursing license as a registered professional nurse and currently registered in New York State.
- At least one year working experience as a Registered Nurse.
- Names and addresses of two persons who can attest to the applicant's scholastic and/or professional performance. (it is preferred that one reference must be from a former instructor or academic adviser and the second from a recent employer or supervisor.)
- Interview with a member of the graduate curriculum committee.
- Submission of scores on the Graduate Record Examination (GRE) General Test.
- Submission of a one-page essay outlining career goals, intellectual and academic interests, and accomplishments related to the Master of Science degree in Nursing.
- All students must complete a graduate level statistics course and earn a grade of $\mathrm{B}(3.0)$ or better prior to matriculation.


## Curriculum for M.S. in Family Nurse Practitioner <br> Program (45 credits)

## Basic Core Courses in Graduate Nursing Programs (15)

Required for all the master's degree programs in nursing.

| NUR 720 | Concepts and Theories for | 3 |
| :--- | :--- | :--- |
| NUR 721 | Advanced Nursing Practice |  |
| NUR 723 | Essentials of Clinical Research | 3 |
| NUR 726 | Strategies for Advanced Nursing | 3 |
| Practice | Health Planning and Policy | 3 |
| NUR 787 | Making: Leadership Issues |  |
|  | Advanced Professional Seminar | 3 |

Graduate courses required for the M.S. in FNP (30)
(In addition to the 15 credits of core courses).
NUR 767 Advanced Pharmacology 3
NUR 766 Advanced Pathophysiology 3
NUR 769 Family Developmental Theory 3
NUR 773 Advanced Health Assessment 3
NUR $774 \quad$ Advanced Family Nursing 6
Practice I - Using a Nursing Science Framework
NUR 775 Advanced Family Nursing
Practice II - Using a Nursing
Science Framework
NUR 776
Advanced Family Nursing
Practice III - Using a Nursing Science Framework
Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Family Nurse Practitioner to
graduate with a master of science degree or post-masters certificate in Family Nurse Practitioner.

Family Nurse Practitioner MS Program Prior to Spring 2020
Curriculum Plan for Post Masters Certificate in Family Nurse Practitioner

## (30 credits)

NUR 767 Advanced Pharmacology 3
NUR 769 Family Developmental Theory 3
NUR 766 Advanced Pathophysiology 3
NUR 773 Advanced Health Assessment 3
NUR 774
Advanced Family Nursing
Practice I - Using a Nursing Science Framework
NUR 775 Advanced Family Nursing
Practice II - Using a Nursing Science Framework
NUR 776
Advanced Family Nursing
Practice III - Using a Nursing
Science Framework
Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Family Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Family Nurse Practitioner.

## Curriculum

## M.S./FNP Curriculum for Full-Time Study:

Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Family Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Family Nurse Practitioner.

## Fall Semester ( 12 credits):

| NUR 720 | Concepts and Theories for | 3 |
| :--- | :--- | :--- |
|  | Advanced Nursing Practice |  |
| NUR 721 | Essentials of Clinical Research | 3 |
| NUR 766 | Advanced Pathophysiology | 3 |
| NUR 773 | Advanced Health Assessment | 3 |
| Spring Semester (12 credits): |  |  |
| NUR 723 | Strategies for Advanced Nursing | 3 |
|  | Practice |  |
| NUR 767 | Advanced Pharmacology | 3 |
| NUR 774 | Advanced Family Nursing | 6 |
|  | Practice I - Using a Nursing |  |
|  | Science Framework |  |

Fall Semester II ( 12 credits):
NUR 726
Health Planning and Policy
Making: Leadership Issues
NUR $769 \quad$ Family Developmental Theory
NUR 775 Advanced Family Nursing

|  | Practice II - Using a Nursing <br> Science Framework |
| :--- | :--- |
| Spring Semester II (9 credits): |  |
| NUR 776 | Advanced Family Nursing <br> Practice III - Using a Nursing |
| Science Framework |  |


| Fall Semester ( $\mathbf{6}$ credits): |  |
| :--- | :--- |
| NUR 720 | Concepts and Theories for |
|  | Advanced Nursing Practice |
| NUR 721 | Essentials of Clinical Research |

Spring Semester (6 credits):
NUR 766 Advanced Pathophysiology
NUR 767 Advanced Pharmacology
Fall Semester II ( $\mathbf{6}$ credits):
NUR $769 \quad$ Family Developmental Theory
NUR 773 Advanced Health Assessment

| Spring Semester II (9 credits): |  |  |
| :--- | :--- | ---: |
| NUR 723 | Strategies for Advanced Nursing | 3 |
| NUR 774 | Practice |  |
|  | Advanced Family Nursing | 6 |
|  | Practice I - Using a Nursing |  |
|  | Science Framework |  |


| Fall Semester III (9 credits): |  |  |
| :--- | :--- | :--- |
| NUR 726 | Health Planning and Policy <br> Making: Leadership Issues | 3 |
| NUR 775 | Advanced Family Nursing <br> Practice II - Using a Nursing <br> Science Framework | 6 |
| Spring Semester III (9 credits): |  |  |
| NUR 776 | Advanced Family Nursing <br> Practice III - Using a Nursing | 6 |
| NUR 787 | Science Framework <br> Advanced Professional Seminar | 3 |

Additional clinical hours as needed to meet regulatory requirements.

## Family Nurse Practitioner Post-Masters Certificate

## Admission Requirements

- A master's degree in Nursing from an accredited college or university.
- Two (2) letters of recommendation.
- An interview with the director of the graduate program or his/her designee.

Students must consult with an adviser in the Nursing Program before starting their certificate program. During their first semester, matriculated students are required to plan their program with an adviser. All students must complete the 30credit curriculum with a cumulative index of 3.0 or better.

## Curriculum

The Certificate in Family Nurse Practitioner program consists of a sequence of seven courses for a total of 30 credits as listed below:

Fall Semester (9 credits):

| NUR 766 | Advanced Pathophysiology | 3 |
| :---: | :--- | :---: |
| NUR 767 | Advanced Pharmacology | 3 |
| NUR 773 | Advanced Health Assessment | 3 |
| Spring Semester | $(9$ credits): |  |
| NUR 769 | Family Developmental Theory | 3 |
| NUR 774 | Advanced Family Nursing | 6 |
|  | Practice I - Using a Nursing |  |
|  | Science Framework |  |

Fall Semester II ( 6 credits):
NUR 775
Advanced Family Nursing
Practice II - Using a Nursing
Science Framework
Spring Semester II (6 credits): NUR 776 Advanced Family Nursing

Practice III - Using a Nursing
Science Framework
Students must achieve a 3.0 GPA and submit proof of completing the American Nurses Credentialing Center (ANCC) certification exam in Family Nurse Practitioner to graduate with a master of science degree or post-masters certificate in Family Nurse Practitioner.

## Physics and Astronomy

Chair and Graduate Adviser: Dimitra Karabali
Department Faculty: Distinguished Professor: Eugene Chudnovsky; Professors: Luis Anchordoqui, Dmitry Garanin, Christopher C. Gerry, Daniel Kabat, Dimitra Karabali; Associate Professor: Matthew O'Dowd; Chief College Laboratory Technician: Elpidio Jiménez

The Department of Physics and Astronomy offers courses designed to meet the needs of students in the programs for secondary-school teachers of natural science.

## Political Science

Chair: Elhum Haghighat (Carman Hall, Room 358)
Department Faculty: Professors: Ira Bloom, Elhum Haghighat, Stanley A. Renshon; Associate Professors: Jeannette Graulau; Assistant Professors: Duran Fiack, Tomohisa Hattori, Joseph J. Mohorcich
The graduate courses in Political Science are designed to enrich the background of teachers of social studies and the humanities. These courses will develop an understanding of the democratic process, the U.S. political system, and global political change.

## Social Work

Chair: Carl Mazza (Carman Hall, Room B18)
Department Faculty: Professors: Patricia Kolb, Carl Mazza; Associate Professors: Joy Greenberg, Jessica Kahn, Evan Senreich, Bryan Warde, Brenda Williams-Gray; Assistant Professors: Justine McGovern, Jermaine Monk, Nicole Saint Louis, Amanda Sisselman, Mohan Vinjamuri; Lecturers: Jonathan Alex, Crystal George-Moses, Manuel Munoz, Barbara Zerzan

## Social Work M.S.W. Program

The Master's of Social Work (M.S.W.) Program at Lehman College prepares social workers to assume positions of leadership in urban public and voluntary sector social service agencies and organizations. All students in the program complete an Advanced Generalist curriculum and gain the knowledge, values and skills of the competencies of the social work profession required for Advanced Generalist Practice with individuals, families, groups, communities, and organizations, as well as for supervision, administration, research, and policy practice. The M.S.W. program is registered with the New York State Education Department and is fully accredited by the Council on Social Work Education (CSWE).

Students who earn their M.S.W. degree will also have completed all educational requirements and will be eligible to take the New York State licensing exam for the LMSW Students who complete the two-year curriculum and earn their M.S.W. degree will have met the educational requirements for the New York State licensing exam for the Licensed Clinical Social Worker (LCSW). Please note that the New York State Education Department has established additional requirements to be eligible to take the LCSW exam; these requirements must be met after graduation.

Three tracks are offered:

## Track A: 2-Year Full-time Program

Classes meet two evenings per week. Students must complete three full days of fieldwork, at least two of which are weekdays, for a total of 21 hours per week. This totals 600 hours each academic year.

## Year One: Full-time Student Status

## Fall Semester

SWK 611
SWK 605 Human Behavior and the Social 3 Environment
SWK 639 Social Welfare Institutions and 3
Programs
SWK $671 \quad$ Fieldwork and Seminar I
Spring Semester
SWK 612
Generalist Social Work Practice
II
SWK 606 Human Diversity and the Social 3
Environment
SWK 643 Social Welfare Policy Analysis 3
SWK 646 Social Work Research I 3
SWK 672 Fieldwork and Seminar II
Year Two: Full-time Student Status
Fall Semester
SWK 713 Advanced Social Work Practice 3
in the Urban Environment I
SWK 707

SWK 727

SWK 773

SWK 680
Special Topics in Social Work
Or
Elective
Elective: Chosen from SWK 681-SWK 694.
Spring Semester
SWK 714

SWK 729

SWK 745
SWK 747
SWK 774
Track B: 3-Year Extended Program
Extended students are matriculated students and are subject to the same admissions process as full-time students. Extended
students complete the first-year curriculum in two years and take the second year on a full-time basis.

- Year One: Part-time Student Status: Classes meet two evenings per week.
- Year Two: Part-time Student Status: Classes meet one evening per week. Students must complete three full days of fieldwork, at least two of which are weekdays, for a total of 21 hours per week. This totals 600 hours each academic year.
- Year Three: Full-time Student Status: Classes meet two evening per week. Students must complete three full days of fieldwork, at least two of which are weekdays, for a total of 21 hours per week. This totals 600 hours each academic year.


## Track C: 1-Year Advanced Standing Program

Students enter as second year students.

- Full-time Student Status: Classes meet two evening per week. Students must complete three full days of fieldwork, at least two of which are weekdays, for a total of 21 hours per week. This totals 600 hours during the academic year.


## Notes for all Tracks:

1. The program does not grant social work course credit for life experience or previous work experience.
2. Transfer credits are not accepted, except for the 3-credit elective with approval of the Social Work Graduate Advisor.
3. The program does not accept non-matriculated students

Admission Requirements for All Tracks:

- Bachelor's degree from an accredited college or university, including 45 liberal arts credits;
- Minimum undergraduate grade average of 3.0;
- Application to the program, including a personal statement that addresses preparation for the program, career goals, and understanding of the profession and commitment to social work values;
- Three letters of recommendation addressing applicant's suitability for the social work profession and preparedness to enter a rigorous academic program. At least two letters should be from college faculty and/or professionals in fields related to social work;
- Resume;
- An interview may be required.

Admission Requirements for Applicants to Track C, Advanced Standing Program
In addition to the above:

- Bachelor's degree with a Social Work major from a Social Work program accredited by the Council on Social Work Education;
- Minimum 3.2 cumulative index in the major;
- Include, among the three references, one reference from the advisor in the baccalaureate Social Work program or from the Program Director, and another from a field supervisor;
- Additional essay question that focus on an illustration from the field.
Applicants for Advanced Standing must provide course descriptions for courses in the undergraduate Social Work major, the Graduate Advisor will determine exemption from courses in the Year One curriculum.


## Selection Process

The Admissions Committee, consisting of the Social Work Graduate Advisor, M.S.W. Program Director, M.S.W. Admissions Coordinator, and at least two full-time faculty members, will review completed applications. Applications will be evaluated on:

- Academic history;
- Quality of personal statement, including degree of selfawareness, conceptual ability, understanding of the profession and commitment to social work values, and communication skills;
- Letters of recommendation.


## Grade Requirements: Probation and Continuation Criteria

## Academic Probation

Graduate students whose GPA falls between 2.7 and 3.0 will be placed on academic probation. Students on academic probation must raise their GPA to 3.0 within the next semester in order to continue in the M.S.W. program. Graduate students whose GPA remains below 3.0 at the end of the probationary semester will be allowed to continue in the M.S.W. program only upon successful appeal to the Graduate Studies Committee.

## Continuation

M.S.W. students whose GPA falls below 2.7 will not be eligible for probation and may only continue in the M.S.W. program upon successful appeal to the Graduate Studies Committee.
Students who receive less than a C in Fieldwork and Seminar (SWK 671, SWK 672, SWK 773, SWK 774) may only continue in the M.S.W. program upon successful appeal to the Graduate Studies Committee.

Students who receive a failing grade in a course may not continue in any course for which the failed course is a
prerequisite. They may enroll in the course for which they received the failing grade in the next semester in which it is offered only if their GPA meets the criteria for probation and continuation.

## Speech-Language-Hearing Sciences

Chair: Cheryl Smith Gabig (Speech Bldg., Room 226)
Deputy Chair: Lynn Rosenberg (Speech Bldg., Room 222)
Graduate Program Director: Peggy Conner (Speech Bldg., Room 134)

Department Faculty: Professors: Mira Goral, John L. Locke; Associate Professors: Alison Behrman, Stephen A. Cavallo, Liat Seiger-Gardner, Cheryl Smith Gabig; Assistant Professors: Diana Almodovar, Peggy Conner, Talita Fortunato-Tavares, Christine Rota-Donahue; Lecturers: Mary Boylan, Christine Neumayer, Lynn Rosenberg; Substitute Lecturers: Cheryl Goettsche, Gail Socolof; Director of Clinical Education and Clinical Services: Leslie Grubler

The Department of Speech-Language-Hearing Sciences offers a graduate program leading to the degree of Master of Arts in Speech-Language Pathology. Registration in all courses requires Departmental permission. Upon admission to the program, students must see the Graduate Program Director, who will assign an area adviser to guide the student's course of study.

## Speech-Language Pathology M.A. Program

The M.A. Program in Speech-Language Pathology prepares students for professional careers as speech-language pathologists. Graduates of the M.A. program meet the academic and clinical education standards established by the American Speech-Language-Hearing Association for the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) and the New York State Education Department (NYSED) for the state License in SpeechLanguage Pathology. The graduate program, in the Department of Speech-Language-Hearing Sciences at Lehman College, is accredited by the Council on Academic Accreditation (CAA) of the American Speech-LanguageHearing Association (ASHA).

## Admission Requirements

- A bachelor's degree (or its equivalent) from an accredited college or university.
- Demonstrate the potential to successfully pursue graduate study that is, having attained a minimum grade average of 3.5 in speech-language pathology courses taken for the graduate major (e.g. undergraduate record or as prerequisite course fulfillment) and a minimum overall cumulative grade average of 3.0 in the undergraduate record.
- Students accepted for matriculation in the M.A. Program in Speech-Language Pathology must have completed the Lehman College undergraduate major in Speech Language and Hearing Sciences, or its equivalent at another institution. Students who have completed an undergraduate degree in a different major must complete 18 credits of core prerequisite course work: SPV 221, SPV 245, SPV 247, SPV 249, SPV 326 or SPV 327, and SPV 328 or the equivalent, to be eligible for admission into the M.A program.
- A minimum of two letters of recommendation from professors, one of which must be a professor of a speechpathology or audiology course taken by the applicant.
- Following an initial application review, select applicants will be invited for a personal interview and will be interviewed by two faculty members. The American Speech-Language-Hearing Association requires that students possess skills in oral and written or other forms of communication sufficient for entry into professional practice.
- Submission of Graduate Record Examination (GRE) scores taken within five years.


## Degree Requirements

To fulfill the requirements for the M.A. degree in SpeechLanguage Pathology, students must complete the curriculum consisting of 63 credits with a minimum GPA of 3.0 . To be eligible for the Certificate of Clinical Competence awarded by the American Speech-Language-Hearing Association (ASHA) and for current New York State licensure in speech-language pathology, students must also successfully complete a minimum of 400 hours of clinical practicum, of which 25 hours include clinical observation of intervention supervised by ASHA certified speech-language clinicians.
Matriculated students must attend two professional development seminars with proof of certification of attendance.

## Curriculum in Speech-Language Pathology (63 credits)

Basic Science and Related Courses ( 9 credits):
SPE 705
Speech Science
SPE 700 Introduction to Research
Methods
SPE 717 Advanced Anatomy, Physiology, and Neurology of Speech

## Professional Courses ( 51 credits):

SPE $701 \quad$ Professional and Ethical Issues
in Speech-Language Pathology
SPE $718 \quad$ Phonology and Articulation
SPE $719 \quad$ Audiology for the Speech-
Language Pathologist
Early Childhood Language and

|  | Communication Disorders |  |
| :---: | :---: | :---: |
| SPE 722 | Language Disorders in SchoolAge Children and Adolescents | 3 |
| SPE 723 | The Nature, Diagnosis, and Treatment of Fluency Disorders | 3 |
| SPE 725 | Diagnostic Techniques in Speech-Language Pathology | 3 |
| SPE 726 | Aphasia and Related Disorders | 3 |
| SPE 727 | Voice Disorders | 3 |
| SPE 729 | Clinical Practicum and Seminar in Speech-Language Pathology | 3 (May be repeated for up to 9.) |
| SPE 730 | Clinical and Classroom <br> Practicum in Speech-Language <br> Pathology | 2 (May be repeated for up to 6.$)$ |
| SPE 734 | Diagnostic Practicum | 3 |
| SPE 736 | Motor Speech Disorders | 3 |
| SPE 739 | Dysphagia | 3 |
|  | Elective | 3 |
| SPE 729: 2 semesters, 3 credits each. |  |  |
| SPE 730: 2 semesters, 2 credits each. |  |  |
| SPE 734: 2 semesters, 3 credits each. |  |  |
| Coursework: |  |  |
| SPE 700 | Introduction to Research Methods | 3 |
| SPE 701 | Professional and Ethical Issues in Speech-Language Pathology | 1 |
| SPE 705 | Speech Science | 3 |
| SPE 717 | Advanced Anatomy, Physiology, and Neurology of Speech | 3 |
| SPE 718 | Phonology and Articulation | 3 |
| SPE 719 | Audiology for the SpeechLanguage Pathologist | 4 |
| SPE 721 | Early Childhood Language and Communication Disorders | 3 |
| SPE 722 | Language Disorders in SchoolAge Children and Adolescents | 3 |
| SPE 723 | The Nature, Diagnosis, and Treatment of Fluency Disorders | 3 |
| SPE 725 | Diagnostic Techniques in Speech-Language Pathology | 3 |
| SPE 726 | Aphasia and Related Disorders | 3 |
| SPE 727 | Voice Disorders | 3 |
| SPE 729 | Clinical Practicum and | 3 (May |


|  | Seminar in Speech-Language | be |
| :---: | :---: | :---: |
|  | Pathology reper | repeated |
|  |  | for up |
|  |  | to 9.) |
| SPE 730 | Clinical and Classroom | 2 (May |
|  | Practicum in Speech-Language | be |
|  | Pathology reper | repeated |
|  |  | for up |
|  |  | to 6.) |
| SPE 734 | Diagnostic Practicum | 3 |
| SPE 736 | Motor Speech Disorders | 3 |
| SPE 739 | Dysphagia | 3 |
| Two 3-credit elective courses: |  |  |
| A minimum of two elective courses: |  |  |
| SPE 748 | Augmentative and Alternative | 3 |
|  | Communication (AAC) |  |
|  | Or |  |
| SPE 735 | Seminar in Speech-Language | 3 |
|  | Pathology |  |
|  | Or |  |
| SPE 796 | Independent Study | 1-3 |
|  | Or |  |
| SPE 703 | Theory and Application of | 3 |
|  | Bilingualism to Speech Language |  |
|  | Pathology |  |
| SPE 754 | Medical Speech Language | 3 |
|  | Pathology |  |
| SPE 755 | Autism Spectrum Disorders and | 3 |
|  | Related Disorders |  |
| SPE 756 | Expert Clinical Writing and | 3 |
|  | Clinical Methods |  |
| SPE 757 | Topics in Early Intervention | 3 |
| SPE 799 | Thesis Seminar | 1-3 |

SPE 735 may be taken up to three times covering different topics.

In order for SPE 796 and SPE 799 to be counted as an elective, the courses must be taken as three-credit courses.

Bilingual Extension
Students who are completing the degree requirements for the M.A. in Speech-Language-Pathology and are interested in obtaining a bilingual extension to the teaching certificate need to complete the following additional 12 credits:
ESC $759 \quad$ Foundations of
Bilingual/Bicultural Education
EDE 727 Teaching English as a Second
Language (Pre-K to Grade 6)
Or

SPE 703

Organization of the Speech and
Hearing Program in Elementary and Secondary Schools
Teaching English as a Second Language (Pre-K to Grade 6) Or
Teaching English as a New Language, grades 5-12

Theory and Application of Bilingualism to Speech Language Pathology

Complete 50 hours of supervised field experiences providing bilingual speech language hearing services to children, and pass the BEA exam (http://www.nystce.nesinc.com/).
Students who completed the degree requirements for the M.A. in Speech-Language-Pathology and are interested in obtaining a bilingual extension to the teaching certificate can contact the Department of SLHS or the Department of Middle and High School Education.

## Department Grade Requirements/Progression Criteria

To avoid academic probation, students must maintain a minimum GPA of 3.0 throughout their program. Students who achieve a GPA of 2.75 or lower in their first 12 credits cannot continue in the program, subject to appeal. A GPA of 3.0 or greater is required for enrollment in SPE 729 Clinical Practicum (two semesters) and for enrollment in SPE 730 (two semesters).

## Clinical Practica Prerequisites, Sequence, and Continuation Criteria

- There are four prerequisite courses (SPE 718, SPE 721, SPE 722, and SPE 725), one PRE-REQ/COREQ course (SPE 726), and a pre-clinic orientation prior to the initial enrollment in SPE 729 (Clinical Practicum and Seminar). Upon completion of 12 credits (SPE 718, SPE 721, SPE 722, and SPE 725), and with a GPA of 3.0 or greater, students must enroll in SPE 729 (Clinical Practicum and Seminar).
- Prior to the initial enrollment in SPE 729, students are required to present signed and dated documentation of 25 clock hours of observation of clinical practice conducted and/or supervised by an ASHA.- certified speech-language pathologist. Students must complete all four courses (SPE 718, SPE 721, SPE 725, and SPE 722) prior to initial enrollment in SPE 729.
- Students enrolling in their first SPE 729 clinical practicum must attend scheduled one-hour clinic orientation seminars in speech-language pathology ( 0 credits) in the semester prior to their first clinical practicum rotation.
- Students enrolled in SPE 729, SPE 730, or SPE 734 must submit documentation of current liability insurance prior to the beginning of the semester.
- Students must complete SPE 726 prior to enrollment in the adult clinic.
- PREREQS for SPE 730 (Clinical and Classroom Externship in Speech-Language Pathology): successful completion of two semesters of SPE 729 and one semester of SPE 734; and completion of coursework: SPE 718, SPE 721, SPE 722, SPE 723, SPE 725, SPE 726.


## Clinical Training Sequence:

## 1st Semester Clinical Practicum:

| SPE 729 | Clinical Practicum and <br> Seminar in Speech-Language <br> Pathology | 3 (May |
| :--- | :--- | ---: |
|  | repeated |  |
|  | for up |  |
|  | to 9.) |  |

PREREQ:
SPE 718
Phonology and Articulation
SPE 721
Early Childhood Language and 3 Communication Disorders
SPE 722 Language Disorders in School- 3 Age Children and Adolescents
SPE 725 Diagnostic Techniques in Speech- 3 Language Pathology
Plus PREREQ/COREQ:
SPE 726
Aphasia and Related Disorders 3
SPE 734 Diagnostic Practicum 3
SPE 734: OPTIONAL.
2nd Semester Clinical Practicum:
SPE $729 \quad$ Clinical Practicum and (May Seminar in Speech-Language be Pathology repeated for up

PREREQ:
SPE 718
Phonology and Articulation
SPE 721
Early Childhood Language and
Communication Disorders
SPE 722 Language Disorders in School-
Age Children and Adolescents
SPE 725 Diagnostic Techniques in Speech-
Language Pathology
SPE 726 Aphasia and Related Disorders 3
SPE 734 Diagnostic Practicum 3
SPE 734: OPTIONAL.
And successful completion with a grade of $B$ or better in first semester SPE 729 practicum
3rd Semester Clinical Practicum:

| SPE 730 | Clinical and Classroom <br> Practicum in Speech- | (May <br> Language Pathology |
| :--- | :--- | ---: |
|  |  | repeated |
|  |  | for up |
|  |  | to 6.$)$ |
| SPE 734 | Diagnostic Practicum | 3 |

SPE 734: OPTIONAL.
PREREQ: Successful completion of two semesters of SPE
729 and at least one semester of SPE 734.
4th Semester Clinical Practicum:
SPE $730 \quad$ Clinical and Classroom 2 (May
Practicum in Speech- be
Language Pathology repeated
for up
to 6.$)$
SPE 734 Diagnostic Practicum 3
SPE 734: OPTIONAL.
PREREQ: Successful completion of two semesters of SPE 729 and at least one semester of SPE 734.

## Practica Grading

No student will advance to a second clinical practicum (SPE 729), to a diagnostic practicum (SPE 734), or to a clinical and classroom externship (SPE 730) unless he/she earns a grade of B or better in the previous clinical practicum experience. If a student receives a practicum grade of B- or lower, he/she must re-enroll in the practicum course and earn a minimum grade of B. The student is permitted to enroll in only one additional graduate course during the semester in which he/she is retaking a practicum course. In order to continue in the program, students cannot receive two final grades of $B$ - or less, or INC or W, or any combination of these grades in either SPE 729 or SPE 730.

## Courses

## ACC - Accounting

## ACC 709 - Advanced Accounting Theory (3)

The history and development of accounting theory. Topics include the objectives of financial statements; the fundamental concepts, conventions, and assumptions underlying financial statements; and the measurement, presentation, and disclosure of the elements of financial statements. Analysis of recent pronouncements of the Financial Accounting Standards Board and its predecessors, the Accounting Principles Board and the Committee on Accounting Procedures. Students will acquire an understanding of the principles used to evaluate current accounting practices and procedures. Students will be required to present reports on journal articles as preparation for the required thesis/special project to be completed in ACC 790.
Prerequisite: ACC 342 or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ACC 719 - Advanced Auditing (3)

A study of auditing standards that will enable the student to relate the conceptual aspects to the procedural aspects of auditing and to understand its philosophy and environment. Explores the growing use of statistical sampling in auditing, as well as the impact of computers on the audit process. Emphasizes auditing problems encountered in computer-based systems, including the evaluation of internal controls, the evaluation of records produced by the system, and the use of the computer as an auditing tool. Written reports, including the Audit Report, are required. Special attention to reportable events and their resolutions with emphasis on professional ethics and responsibilities.
Prerequisite: ACC 441 or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ACC 724 - Accounting for the S.E.C (3)

A detailed analysis and study of the requirements of the S.E.C. with regard to registration forms, reports, opinions, and ethics. Study of S.E.C. Accounting Series Releases, rulings, and decisions.
Prerequisite: ACC 719 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ACC 750 - Advanced Taxation (3)

The relationship between taxation and the formulation of business decisions and financial policies, with emphasis on problems resulting from the imposition of federal income taxes on business. Gross income, deductions, and capital gains are the key areas covered. Limited attention is given to the effect of federal income taxation of the individual. The course is broadly gauged, problem-oriented, and conceptual in approach.

Prerequisite: ACC 442 or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ACC 751 - Estate and Gift Taxation (3)

A detailed study of the Federal and New York State estate and gift tax laws. Application of tax principles in planning and the preparation of returns will be included.
Prerequisite: ACC 442 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ACC 785 - Independent Graduate Study in Accounting (3)

Individual study and research on special topics in accounting, in consultation with a faculty member.
Prerequisite: To be determined by a supervising faculty member. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ACC 790 - Graduate Seminar in Accounting (3)

Readings and research culminating in the writing of a thesis/special report based on independent research. With faculty assistance, the student will select an accounting topic, present the results of his or her research to the class, and apply that research to an original topic.
Prerequisite: ACC 709 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ANT - Anthropology

## ANT 501 - Principles of Anthropology (3)

(For students who have had no previous course work in cultural anthropology.) General introduction to the various fields of anthropology. Discussion of basic anthropological concepts. Comparative study of cultural and societal components, such as the economy, kinship, social groupings, political organization, religion, and ideology.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 510 - Culture and Education (3)

Education and child training in selected societies. The bearing of the principles of social anthropology on contemporary problems of education.

Cross-Listed as: LEH ANT 510/SOC 510. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 520 - Interculture Relations (3)

Analysis of diverse cultural patterns; nature of culture change, directed and nondirected; critical examination of case studies.
Cross-Listed as: LEH ANT 520/SOC 520. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 525 - Ethnology of Selected Areas: North America (3)

The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 530 - Ethnology of Selected Areas: Latin America (3)

The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 535 - Ethnology of Selected Areas: Africa (3)

The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 540 - Ethnology of Selected Areas: Middle East (3)
The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 545 - Ethnology of Selected Areas: India (3)

The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 550 - Comparative Study of Puerto Rican Cultures

 (3)Ethnographic analysis of modern communities in Puerto Rico; effects of urbanization, industrialization, and tourism. Comparative analysis of Puerto Rican culture in New York, and evaluation of the educational process in each culture.

Cross-Listed as: LEH PRS 550/ANT 550. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 555-Ethnology of Selected Areas: Southeast Asia (3)
The comparative study of cultures and societies. Analysis of ecological, economic, sociopolitical, and ideological systems.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 560 - Introduction to Museology (3)
Study of the museum field, including the concept and functions of the neighborhood museum; restoring and preserving material; assembling, planning, installing, and labeling exhibits; and training in gallery talks and lectures. Note: Museum work to be arranged.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 570 - Human Evolution (3)
Origin and development of the order Primates, with special emphasis on hominid evolution.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 580 - Ethnographic Field Methods (3)
Training in the techniques of ethnography, including observation and interviewing, through classroom and individual projects.

Prerequisite: ANT 501 or undergraduate course in introductory anthropology. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ANT 630 - Culture Change (3)

Anthropological analysis of rapidly changing sociocultural conditions in selected societies.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 650 - Language, Culture, and Society (3)
The anthropological study of language. Study of the situational, social, and cultural meanings of messages and message forms. The ethnography of communication.
Prerequisite: ANT 501 or permission of instructor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ANT 651 - The Anthropology of Literacy (3)
Examination from an anthropological perspective of the origins and development of writing systems and of literacy practices in Western and non-Western societies. Topics include: oral vs. literate societies; debate over the social, cultural, and cognitive consequences of literacy; ethnographic approaches to literacy acquisition and development.

Prerequisite: ANT 501 or permission of instructor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH - Art History

## ARH 751 - Primitive Art (3)

The art of prehistoric and preliterate peoples, with emphasis on African, Oceanic, and pre-Columbian art.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 753 - Modern Art (3)

Twentieth-century painting and sculpture in Europe and America.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 757-Renaissance Art (3)

The art of the High Renaissance and the evolution of Mannerism.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 775 - Seminar- The Art of Africa (3)

Selected topics in African art, with emphasis on the form, cultural context, and history of art among various tribal groups south of the Sahara.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 777 - Seminar- The Art of the South Pacific (3)

Selected topics in the art of the South Pacific, with emphasis on the form, cultural context, and history of art among the tribal peoples of Australia, Indonesia, Melanesia, Micronesia, and Polynesia.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ARH 779 - Impressionism and Post-Impressionism (3)
Seminar in a selected topic of Impressionism or PostImpressionism. Topic will vary in different semesters.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 781 - Seminar in Contemporary Art (3)

Research topics related to recent developments in painting and sculpture.
Prerequisite: 30 hours, plus confs. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ARH 783 - Independent Research (1)

Research in art history under the guidance of a faculty member.

Prerequisite: 30 hours, plus confs. Requirement Designation: Graduate Liberal Arts. Offered: Fall Spring.

ARH 791 - Theory and Criticism of Art (3)
A study of the methods of judging works of art qualitatively in different periods and cultures.

Prerequisite: 30 hours, plus confs. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ARH 797 - Special Problems in the History of Art (3)
(May be repeated for credit with Departmental permission.) Seminars in special topics will be announced at the start of each semester in which the course is given.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART - Art

ART 607 - Fundamentals of Ceramic Hand Building (3)
Exploration of basic hand building techniques; nature of clay and its unique properties explored in both functional and nonfunctional ways; and historical and cultural uses of clay.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 612 - Introduction to Digital Imaging (3)
Introduction to the creation of art and imagery using computers and digital media. Production of a portfolio of images for presentation. (No previous computer experience required.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 613 - Two-Dimensional Design for Digital Media (3)
Digital tools for the design and production of two-dimensional graphics and type for the printed page and electronic media. Emphasis on the principles of typography and the history of graphic design and reproduction.
Prerequisite: ART 612 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ART 617 - Fundamentals of Wheel Thrown Ceramics (3)
Wheel throwing skills to create ceramic forms using a potter's wheel.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 621 - Computer Modeling and Design (3)

An introduction to the theory and practice of two- and threedimensional modeling and rendering. Design and
mathematical concepts will be explored in the lecture room, on the computer, and in the studio. Topics include primitive objects, transformations, curve creation and manipulation, symmetries, surface creation and modification, and basic rendering.

Prerequisite: One of the following: ART 612, ART 312, ART 221, or permission of the instructor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 622 - Computer Modeling and Design II (4)

Advanced surface modeling with consideration of continuity of surfaces and their tangents and curvature. Evaluation techniques, construction planes, and modeling workflow. Creation of computer models from two-dimensional views and three-dimensional models.

Prerequisite: ART 621 or ART 321 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 702 - Advanced Problems in Design I (3)

A studio for design, with emphasis on contemporary concepts. Students will be given the opportunity to carry out problems in a specialized field of design.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 703 - Advanced Digital Media I (Interface Design) (3)

An advanced studio devoted to the exploration and critical discussion of digital media. Topics may include, but will not be limited to: physical computing; digital imaging; the Internet and the World Wide Web; 3D modeling and animation; multimedia; digital audio; digital video; creativity and technology; information design; interface design; identity design; interaction design; networks; scripting; visualization; and professional development.

Prerequisite: ART 107 and ART 307, or ART 607 and ART 617, or equivalent. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 704 - Advanced Problems in Design II (3)
See ART 702 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 707 - Advanced Ceramics 1 (3)

Technical, structural, and scientific understanding of the use of clays and glazes. Variety of hand-building and wheelthrowing techniques to produce functional and sculptural forms.
Prerequisite: ART 107 and ART 307 or ART 607 and ART 617 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 710 - Advanced Drawing (3)

Study of various drawing techniques and their application to problems in the area of specialization.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 712 - Advanced Painting I (3)

A studio for painting, with individual criticism. Special attention is given to the creative disciplines of contemporary painting. The studio work is accompanied by discussions of theories and influences of the modern movements in art.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 713 - Advanced Digital Media II (Interaction Design)

 (3)This course is an advanced studio devoted to both the exploration and critical discussion of a broad range of digital media and their multiple interactions.

Prerequisite: ART 703 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 714 - Advanced Painting II (3)
See ART 712 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 716 - Advanced Painting III (3)
See ART 712 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 717 - Advanced Ceramics 2 (3)

Advanced hand-building and wheel-throwing techniques, emphasizing design and conceptual ideas. Development of glazes, underglazes, and color palates through scientific experiments and firing techniques. Study of historical and contemporary ceramic work.

Prerequisite: ART 707 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 718 - Advanced Painting IV (3)
See ART 712 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 722 - Advanced Sculpture I (3)
Development of creative expression in sculpture, including research projects in various sculptural media.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 723 - Advanced Digital Media III (Identity Design) (3)

This course is an advanced studio devoted to the design of identity. From simple business logos to entire public relations campaigns, identity design is an area of intense debate and discourse. Exploration and critical discussion of digital media's role in advertising, politics, art, and personal identity are all areas of discussion.

Prerequisite: ART 703 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 724 - Advanced Sculpture II (3)
See ART 722 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 726 - Advanced Sculpture III (3)

See ART 722 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 727-Ceramic Sculpture (3)

Design and construction of fired ceramic sculpture.
Prerequisite: ART 707 or ART 107 and ART 307
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 728 - Advanced Sculpture IV (3)

See ART 722 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 730-Advanced Printmaking I (3)

Development of an individual body of work and studio practice through printmaking. Technical demonstrations may include traditional, experimental, and digital printmaking methods; professional formats; and critical discussions of prints.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 731 - Applied Imaging and Applications to the World Wide Web I (3)

Concepts and techniques underlying the World Wide Web, including image processing, two-dimensional graphics, and computer science.

Prerequisite: ART 738 Corequisite: ART 738. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 732 - Advanced Printmaking II (3)

Continuation of an individual body of work and studio practice through printmaking. Technical demonstrations may include traditional, experimental, and digital printmaking
methods; professional formats; and critical discussions of prints.

Prerequisite: ART 730 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 733 - Advanced Digital Media 4 (Information Design) (3)

This course is an advanced studio devoted to the conceptual process of information design. It will involve the exploration and critical discussion of a wide variety of digital media.

Prerequisite: ART 703 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 734 - Advanced Printmaking III (3)
Continuation of an individual body of work and studio practice through printmaking. Technical demonstrations may include traditional, experimental, and digital printmaking methods; professional formats; and critical discussions of prints.
Prerequisite: ART 732 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 736 - Advanced Printmaking IV (3)

Mastery of an individual body of work and studio practice through printmaking. Technical demonstrations may include traditional, experimental, and digital printmaking methods; professional formats; and critical discussions of prints.
Prerequisite: ART 734 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 737 - Adv Ceramics III (3)

Advanced individual projects using architectural, sculptural, and design concepts in clay. Emphasis on contemporary trends and developments in the ceramic field.

Prerequisite: ART 717 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 738 - Advanced Photography I (3)

Creative and technical aspects of photography: independent projects in camera techniques; darkroom processing and printing.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 740 - Advanced Photography II (3)
See ART 738 for description.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 741 - Applied Imaging and Applications to the World Wide Web II (3)

Advanced methods of motion graphics, action Scripts (programming), QuickTime, imagery, sound, interactivity, animation techniques, and design.

Prerequisite: Permission of instructor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ART 742 - Independent Research (3)
(May be repeated for credit up to a maximum of 9 credits, with Graduate Adviser's permission.) Studio work under guidance of a faculty member.

Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 744 - First-Year Graduate Seminar (3)

Graduate-level research methods in art and digital media, with attention to the discourse and theory used to produce and critique artistic work.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ART 746 - Masters Project (3)

(required of all M.A. candidates). Individual project in the student's area of specialization.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 748 - Master's Thesis I (3)

Individual project in the student's area of specialization.
Prerequisite: ART 742 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 750 - Master's Thesis II (6)

Continuation of individual project in the student's area of specialization.
Prerequisite: ART 748 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 752 - Advanced Two-Dimensional Design for Digital Media (3)

(May be repeated for a maximum of 6 credits). Emphasis on two-dimensional design projects for production. Completion of a professional portfolio of projects suitable for presentation.
Prerequisite: ART 613 Cross-Listed as: LEH ART 752/ART 755. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 755 - Seminar In Contemporary Art (3)

Issues in contemporary art and the primary components of today's art practice through a series of off-campus visits to galleries, museums, artists' studios, and talks with working artists, critics curators, and other arts professionals.
Cross-Listed as: LEH ART 752/ART 755. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ART 757 - Special Topics in Studio Art (3)

A course on topics such as botanical illustration, animal sculpture, architectural rendering, etc. that are not covered by
existing courses. (May be repeated for a maximum of 9 credits with Graduate Adviser's permission.)
Prerequisite: Any 700-level course in a related skills area (e.g., painting, sculpture, computer imaging). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## AST - Astronomy

## AST 601 - Astronomy of Solar Systems (4)

(Intended primarily for high school science and mathematics teachers, but open to other qualified graduate students.) Nature, origins, and evolution of the sun, planets, and components of the solar system. Laboratory experiments and observations are integrated with lectures. A research paper is required.
Prerequisite: One year of college physics (or permission of the instructor). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## AST 602 - Stellar Astronomy (4)

(Intended primarily for high school science and mathematics teachers, but open to other qualified graduate students.) Stars, interstellar matter, and stellar systems. Pulsars and laws of motion and gravitation. Techniques of astronomical observation. Basic concepts of astrophysics. Stellar evolution; special systems, including pulsars, black holes, and galaxies. Basic cosmology. Laboratory experiments and observations are integrated with lectures. A research paper is required.
Prerequisite: One year of college physics (or permission of the instructor). Requirement Designation: Graduate Liberal Arts.
Offered: Fall-Spring.

## BIO - Biology

## BIO 501 - Topics in Genetics (4)

Basic genetic principles and their application to living organisms.

Prerequisite: One year of college biology. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 502 - Topics in Economic Botany (4)

Basic economic botany principles or basic processes and structures in plants; their relation to factors in the environment; reproduction; heredity, and variations in plants.
Prerequisite: One year of college biology. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

BIO 503 - Topics in Urban Ecology (4)
Exploration of the study of interrelationships between organisms and their biotic and abiotic environment in relation to urban settings including population and community interactions, the nature of the niche, endangered species
within city settings, the urban heat island effect, pollution concepts in general, and human's role in the system. Examination of the complexities of the ecosystems through gathering and interpreting local ecological data. Includes lab work and analysis using various data analysis software.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 599 - Studies in Biology (4)

Advanced, in-depth study and research of a specialized topic in Biology that is not covered by existing courses. (May be elected for a maximum of 8 credits.)

Prerequisite: Approval of the Departmental Graduate Advisor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 610 - Mammalian Physiology (4)

Principles of integration and maintenance of homeostasis in mammals, including the activity of the nervous, endocrine, cardiovascular, renal, and digestive systems. Related laboratory experiments.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 611 - Problems in Microbiology (3)

(For students who are teaching or plan to teach science or biology in secondary schools.) Reading and projects based on recent developments in microbial cytology, growth, metabolism, variation and dissociation, host/parasite relations, antibiosis, and other associations, e.g., with studies taken from bacteria, fungi, and viruses.
Prerequisite: One course in bacteriology or microbiology, one year of college chemistry, and one year of college physics. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 612 - Plant Growth and Development (4)

A molecular approach to physiological processes in autotrophic organisms, with emphasis on photosynthesis, phytochrome-mediated developmental responses, and hormonal regulation of cell and tissue differentiation.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 615 - Medical Microbiology (4)

Study of disease mechanisms, involving bacteria, viruses, fungi, and parasites. A case-based approach focused on common clinical symptoms, diagnostic laboratory tests, and treatment options.
Prerequisite: BIO 331 (Experimental Microbiology) and Permission of the Graduate Advisor. Requirement Designation: Graduate Liberal Arts.

## BIO 618 - Problems in Ecology (4)

Recent advances in ecology in urban environments will be explored in relation to population and community interactions, the nature of the niche, endangered species, non-natives, threats to the biosphere, and possible modes of recovery Fieldwork will be devoted to observing different urban ecosystems for gathering and interpreting data.
Requirement Designation: Graduate Liberal Arts.

## BIO 621 - Special Topics in Physiology (4)

Recent advances in integrative, cellular, and molecular physiology. Areas include information transfer in the cell, enzyme activity, muscle and nerve function, and mechanisms of hormone action. Laboratory work is designed to enable students to acquire skill in relevant biological techniques.
Prerequisite: One year of college biology (physiology recommended), a half-year of college physics, and one year of college chemistry (organic chemistry recommended).
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 626 - Protozoology (4)

Biology of the protozoa, including morphology, physiology, and systematics of both free-living and parasitic forms. Consideration of phylogeny and ecology, life history, and epidemiology of selected protozoa. Laboratory includes identification, collection, culturing, and straining; emphasis on current techniques and their applications for basic research.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 630 - Seminar in Biology (1)

(May be taken twice, to a maximum of 2 credits.) Reports on and discussion of selected topics.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 632 - Biological Data Analysis and Interpretation (2)

Applications of statistics, data interpretation and data presentation in biology focused on genetics, molecular biology, biochemistry, ecology and evolution. Topics include: the presentation of biological data, summary statistics, probabilities, probability distributions and various methods of hypothesis testing.

Requirement Designation: Graduate Liberal Arts.
BIO 634 - Cell Biology and Electron Microscopy (4)
Structure and ultrastructure of plant and animal cells and cell organelles as revealed by microscopic, electronmicroscopic, cytochemical, and enzyme-cytochemical methods.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 635 - Neurophysiology (3)

A general consideration of nervous systems, excitable membrane physiology, synapses, sensory receptors, trophic function, regeneration of nervous tissue, and behavior.
Prerequisite: One undergraduate course in animal physiology; one year of organic chemistry. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 636 - Neurophysiology Laboratory (2)

The laboratory will introduce the students to instrumentation and neurophysiological techniques. The experiments will examine bioelectricity, receptor processes, central processes, behavior, and regeneration.
Prerequisite: BIO 635 Corequisite: BIO 635. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## BIO 642 - Molecular Biology (4)

Structure and function of biological macromolecules. The synthesis of DNA in vitro and in vivo, the transfer of information from DNA to RNA, and the translation of informational RNA into protein. The genetic code and basic principles of molecular genetics will also be included. The laboratory will introduce students to basic techniques in molecular biology, including sterile technique, bacterial growth, gel electrophoresis, restriction enzyme digestion, bacterial transformation, and clonin

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 644 - Biological Chemistry (4)

Stress on the central role of nucleic acids and proteins in living cells: biological oxidation and intermediary metabolism of carbohydrates, lipids, and proteins, and the general properties of enzymes and enzymecatalyzed reactions in the intact cell and cell-free systems. Laboratory work stresses use of modern techniques used in biochemical analysis and in enzyme assays. Selected experiments to demonstrate the dynamic aspects of biochemistry in living cells and in cellfree systems.
Prerequisite: CHE 234 and CHE 235 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 646 - Statistics for Biological Research (4)

Biostatistical principles and methods for experimental biologists. Statistical planning of experiments, collection of data, randomization, elementary factorial analyses, analysis of variation, and regression.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 701 - Biological Systematics (4)

A study of the theoretical basis and methodologies of each of the current schools of systematics, and the arguments used by each school in uncovering the phylogenetic relationships between organisms. Topics will include Aristotelian essentialism, evolutionary systematics, phenetics, cladistics (phylogenetic systematics), transformed (pattern) cladistics, monophyly, paraphyly, polyphyly, parsimony, homology, homoplasy, character state analysis, and polarity. The role of paleontological data in phylogenetic reconstruction will be explored. Students will use the methods learned to construct caldograms and phylogenetic relationships from a variety of data sets, and learn how to use data in resolving phylogenetic and biogeographic relationships.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 70601 - Plant Systematics: Lecture (2)

The philosophical basis of the classification of organisms and the relationships of phylogeny to taxonomy. The nature of species, genera, and higher taxa. The significance of data from various biological disciplines in the establishment of taxonomic systems. The historical development of plant classification.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 70602 - Plant Systematics: Laboratory (2)

## Plant Systematics: Laboratory

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 70605 - Taxonomy of Vascular Plants: Lecture (3)
Consideration of current and historical systems of classification of extant tracheophytes at the level of families and higher taxa.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

BIO 70606 - Taxonomy of Vascular Plants: Laboratory (2)
Students will review key diagnostic features of the liverworts, mosses, hornworts, clubmosses, ferns, gymnosperms, and angiosperms in their currently understood phylogenetic arrangement. Field trips will be conducted to prepare a pressed collection of representative examples from key lineages including major angiosperm families.
Prerequisite: BIO 70605. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 70610 - Biological Systematics (4)
While the theoretical basis and methodologies of each of the current schools of systematics will be discussed, the course will stress the basis and use of phylogenetic principles
(cladistics) for developing topologies of terminal taxa from appropriate data matrices. There will be discussions of the concepts of species, monophyly, paraphyly, polyphyly, parsimony analysis, homology and homoplasy, as well as character selection, character state analysis, and polarity. Students will read classic and current papers from both the botanical and zoological literature to show the modern use of both morphological and molecular data in resolving phylogenetic and biogeographic relationships. Students will learn how to calculate the Wagner Algorithm and to use appropriate computer programs, i.e., WinClada and PAUP, for data analysis.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 710 - Microbial Physiology (4)

Organization of physiological processes in microorganisms, including structure, energy-yielding mechanisms, macromolecular biosynthesis, growth, and regulation.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 71015 - Plant Molecular Biology: Lecture (2)

DNA and protein structure transcription, translation, nuclear and cytoplasmic gene regulation, chromatin structure, transposable elements, plant genetic engineering, plant viruses.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 71016 - Plant Molecular Biology: Laboratory (3)

Students will use plant tissues while learning many basic molecular techniques, such as DNA and RNA hybridization, gene cloning, and chloroplast isolation.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 71101 - Basic Laboratory Techniques in Biochemistry (1)

Basic Laboratory Techniques in Biochemistry.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 71403 - Cell Biology (2)

Structure and ultrastructure of plant and animal cells and cell organelles as revealed by microscopic, electron-microscopic, cytochemical, and enzyme-cytochemical methods.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 719 - Physiology and Taxonomy of Fungi (4)

A survey of the major groups of fungi; special problems in fungal physiology; fungi in general physiology; and
morphological, ultrastructural, and biochemical approaches to fungal taxonomy and phylogeny. Fungi and human affairs.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 722 - Vertebrate Endocrinology (3)
A comparative study of endocrine systems in the vertebrates with special emphasis on neuroendocrinology, and the endocrine control of cellular activities, metabolism, and homeostasis.

Prerequisite: An undergraduate course in mammalian physiology or in comparative animal physiology. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 72201 - Endocrine Physiology (3)

Influence of the endocrine system on membrane transport and cellular processes; endocrine regulation of reproduction, growth, metabolism, and homeostasis.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 72202 - Laboratory in Endocrinology (3)

Modern laboratory techniques used in endocrine research involving surgery on small mammals, radioisotopes, and biochemical methods to follow the action of hormones at a molecular or cellular level.

Prerequisite: BIO 72201 Corequisite: BIO 72201.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 724 - Cell Physiology (4)

Regulatory and integrative aspects of biochemical processes at the cellular level that contribute to the general and specialized functions of living cells. Representative areas include the cell and its organelles, energy metabolism, and cellular redox potentials; bioelectric phenomena; protein structure and specificity and its relation to cellular differentiations; and membrane structure and transport processes. Lab will include work with intact and cell-free systems to demonstrate physiological and biochemical properties of living cells as well as model systems to demonstrate principles.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 726 - Physiology and Biochemistry of Differentiation (3)

The factual and hypothetical aspects of protein synthesis. Its relation to cytodifferentiation and the regulation of gene activity is considered from the viewpoint of cellular control mechanisms. Evidence will be considered that selected vitamins, minerals, and cofactors may have critical roles in the regulation of protein synthesis at the level of transcription and translation.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 73001 - Plant Physiology: Lecture (3)

Physiological phenomena of plants, with emphasis on growth and development.

Prerequisite: Plant physiology and biochemistry or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 73002 - Plant Physiology: Laboratory (3)
Laboratory for exploring problems in plant physiology.
Prerequisite: BIO 73001. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 740 - Virology (3)

Quantitation, molecular architecture, and chemistry of bacterial, plant, and animal viruses. The physiology of virushost interactions, with emphasis on viral nucleic acid replication, and the control of viral genetic expression.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 744 - Special Topics in Biological Chemistry (3)
Advanced and in-depth studies of specialized topics of current interest in biological chemistry.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 74501 - Phytochemistry: Lecture (2)

Study of the organic constituents of plants. Biosynthetic mechanisms characteristic of plants, with emphasis on those peculiar to plants. Survey of secondary products with emphasis on medicinally important plant compounds.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 74502 - Phytochemistry: Laboratory (3)
Using experiments, students will learn how plant-derived chemicals are extracted, analyzed and studied.
Prerequisite: BIO 74501. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 746 - Biology of Aquatic Organisms (4)

Biological relationships of aquatic organisms with their freshwater and marine environments, stressing community, population, life histories, and behavior in natural and altered aquatic environments.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 750 - Comparative Physiology and Biochemistry (3)

A systematic comparison of the physiological and biochemical phenomena of life throughout the phylogenetic scale.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 752 - Plant Morphogenesis: Lecture (3)

Theories of plant development based on interpretations of physiological processes, biochemical reactions, and morphogenetic behavior of cells, tissues, and organs undergoing growth and differentiation. The interaction of internal and external factors affecting the development and patterns of growth in plants.
Prerequisite: Plant physiology and cytogenetics. Recommended: Comparative Morphology of Vascular Plants and Phytochemistry. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 75201 - Plant Morphogenesis: Laboratory (3)

Plant Morphogenesis: Laboratory
Prerequisite: Plant Morphogenesis: Lecture. Corequisite: Plant Morphogenesis: Lecture.. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 75401 - Comparative Morphology of Vascular Plants: Lecture (2)
The general organography of the vascular plant. Investigation of forms and structures as related to phylogeny among the tracheophytes, with special emphasis on the comparative morphology and evolution of reproductive structures.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 75402 - Comparative Morphology of Vascular Plants: Laboratory (3)
By reviewing historical trends in land plant developments from liverworts to angiosperms in a recitation format, students will further explore the morphology of vascular plants by experiments involving tissue culture, the creation of models, and the preparation of a collection of pressed specimens to illustrate key concepts.
Prerequisite: BIO 75401. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 76105 - Fishes and Fisheries Biology: Lecture (3)
A study of the statistical methods for the treatment and evaluation of data relevant to the field of fisheries science. Concepts such as the unit-stock, population size, growth, mortality, and maximum sustainable yield will be explored. Students will have the opportunity to treat data by modern microcomputer techniques.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 76106 - Fishes and Fisheries Biology: Laboratory (3)

Students will field collect in both freshwater and marine environments. Collections will be worked up using standard fisheries science techniques to evaluate diet, growth parameters, and population dynamics. Analysis of data will be turned in as a final term project.
Prerequisite: BIO 76105. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 76113 - Marine Ecology: Lecture (2)

Examination of ecological processes as they operate in the marine environment. Broad topics will be explored, such as factors affecting primary and secondary production, population dynamics, intra- and specific interactions, resource partitioning in time and space, community structure, and interactions at the community level.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 76114 - Marine Ecology: Laboratory (2)

Students will, using field collected material, examine such ecological principle as resource partitioning, growth and population dynamics of coastal marine organisms, niche partitioning, and community structure. When possible, field trips to field sites will be incorporated. Students will learn how to apply Fishery Statistics to their studies and write these up as term projects for grade.

Prerequisite: BIO 76113. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 762 - Physiological Ecology: Lecture (3)
Physiological Ecology: Lecture
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 76201 - Physiological Ecology: Laboratory (3)
Physiological Ecology: Laboratory
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 763 - Experimental Parasitology: Lecture (3)

An ecological and physiological approach to the study of hostparasite relationships. Discussion will concentrate on recent advances in the field.

Requirement Designation: Graduate Liberal Arts.
BIO 76301 - Experimental Parasitology: Laboratory (3)
Emphasis will be placed on the applications of modern procedure to the study of parasitic organisms.

Prerequisite: BIO 763. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 76403 - Plant Ecology: Lecture (3)
Plant Ecology: Lecture
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 76404 - Plant Ecology: Laboratory (3)
Using field studies and laboratory experiments, students will become familiar with common plants and ecosystems of the region, how they react to perturbation, and how they remain resilient.
Prerequisite: BIO 76403. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 76502 - Paleobotany: Laboratory (2)
Students will study plant fossils in the laboratory from the microscopic to macroscopic scales.
Prerequisite: BIO 76501. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 77003 - Cytology: Lecture (2)
Micro- and ultrastructure; function; and behavior of organelles of plant and animal cells as revealed by microscopic, electronmicroscopic, and cytochemical analysis.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 77200 - Electron Microscopy Cytology: Laboratory (4)

Review of key concepts in preparation of material for both the Scanning Electron Microscope and the Transmission Electron Microscope, which will be examined and photographed. Material will be used to compile a laboratory notebook as the basis of a semester-long project to identify and measure organelles and structures characteristic to each sample at hand.
Prerequisite: BIO 77003. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 78001 - Mathematical Biology: Lecture (3)
Biometry data analysis and graphics.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 78002 - Mathematical Biology: Laboratory (2 or 3 )
Biometry data analysis and graphics.
Prerequisite: BIO 78001. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 791 - Colloquium (1)
Students attend weekly seminars and have discussions with speakers.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 7921 - Tutorial (2 (may be repeated for a maximum 4 credits))

A study performed under the supervision of a member of the graduate faculty in Biological Sciences intended to involve the student in the performance of a carefully supervised project.
Prerequisite: Departmental Permission Required. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 7922 - Tutorial (4)

Tutorial
Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
BIO 79302 - Seminar in Special Topics (2)
Seminar in biological sciences exploring special topics. Requirement Designation: Graduate Liberal Arts.

## BIO 7933 - Seminar in Special Topics (2)

Seminar in Special Topics.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 7991 - Thesis Research (3)

Independent laboratory investigation. (This course may be repeated with special permission of the Graduate Adviser.)
Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 7992 - Thesis Research (3)

Independent laboratory investigation. (This course may be repeated with special permission of the Graduate Adviser.)

Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## BIO 7993 - Thesis Research (3)

Independent laboratory investigation. (This course may be repeated with special permission of the Graduate Adviser.)
Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## U800

## BIO 810 - Seminar in Biochemistry (1)

Required of all students.
Requirement Designation: Graduate Liberal Arts.

## BIO 820 - Research toward the Doctoral Dissertation ()

Credits variable. Required of all doctoral students.
Prerequisite: The First Doctoral Examination described in the Bulletin of The Graduate School of The City University of

New York. Other courses can be found in this same Bulletin. Requirement Designation: Graduate Liberal Arts.

BIO 899 - Independent Doctoral Research (1)
Independent Doctoral Research.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CHE - Chemistry

## CHE 542 - Advanced Inorganic Chemistry (3)

A course in modern inorganic chemistry emphasizing the theoretical aspects that should prove useful to high school science teachers. Topics will include atomic theory, ionic and covalent bonding, transition metal chemistry, solvent systems, and acid-base behavior. Concepts will be illustrated with examples from descriptive inorganic chemistry.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CHE 544 - Biochemistry (3)

An introduction to the principles of biochemistry. Topics will include the relationship between the three-dimensional structure of proteins and their biological activities; the basic concepts and design of metabolism; biological membranes and compartmentation; nucleic acids and the storage, transmission, and expression of genetic information.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CHE 548 - Special Topics in Modern Organic Chemistry

 (3)A course designed for high school science teachers who seek to update their background in organic chemistry. Topics will include: the organic chemistry of the origins of life; polymer chemistry; chemistry of pharmaceuticals such as antibiotics, analgesics, steroids, and vitamins; and pheromone chemistry.

Prerequisite: One year of organic chemistry. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CHE 549 - Instrumental Methods of Analysis (3)

An introduction to the theory and instrumentation used in modern chemical analysis. Topics will include aqueous and nonaqueous acid-base equilibria; ionexchange methods; ionselective electrodes; mass spectrometry; and selected spectroscopic and electrometric methods.

Prerequisite: One semester of quantitative analysis or its equivalent. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CHE 560 - Selected Topics in Chemistry (3)

This course gives the Department an opportunity to offer a course in chemical demonstrations or various other topics of
current importance in chemistry (e.g., spectroscopy, modern theories of chemical reactions, and applications of group theory to chemistry).

Prerequisite: General chemistry; others as appropriate. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CLA - Classics

## CLA 611 - Synthesis of Classical Culture (3)

Rapid survey of the culture of Greece and Rome, designed to enable students to effect a correlation of classical literature and art with their historical background. The course includes visits to The Metropolitan Museum of Art. Each student is required to make a special study of one important literary genre in its development through Greek and Latin literature.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## CLA 630 - Greek and Roman Tragedy in English Translation (3)

Study of Greek tragedy against the background of its times, with some consideration of the validity of Aristotelian critical standards and of the Roman tragedy of Seneca the Younger as an important link between Greek tragedy and the drama of the Renaissance.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## CLA 640 - Greek and Roman Comedy in English Translation (3)

Study of the form and contemporary relevance of ancient comedy as seen through the plays of Aristophanes, Menander, Plautus, and Terence, with primary attention to its evolution and importance for later manifestations of the comic spirit in literature.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## CMP - Computer Science

## CMP 605 - BASIC and Computer-Assisted Instruction (3-

 4)Introduction to programming in BASIC on a microcomputer. Standard methods of computer-assisted instruction: drills, tests, tutorials, and demonstrations. Management topics, such as scorekeeping and record-keeping. Examples will be taken from a cross-section of disciplines.
Prerequisite: This course is intended for teachers with little or no programming background. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 607 - LOGO and Computer-Assisted Instruction (3)

Introduction to programming in LOGO on a microcomputer. LOGO graphics techniques. Standard methods of computerassisted instruction: drills, tests, tutorials, and demonstrations. Discovery approach to geometry.
Prerequisite: This course is intended for teachers with little or no programming background. No particular math background is required. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 609 - Programming in Pascal (4)

An intensive introductory course in structured programming using the language Pascal on microcomputers. This course is intended for people wishing to teach Pascal at the high school level.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 683 - Numerical Analysis (4)

Topics in numerical analysis chosen from number systems, error analysis, linear equations and matrices, differentiation and integration, nonlinear equations, interpolation and approximation, and ordinary and partial differential equations.
Prerequisite: linear algebra and one year of programming. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 685-Computability Theory (4)

Mathematical formulation of computability theory and abstract machine theory. Finite-state machines and Turing machines; Church's Thesis; recursive functions and recursively enumerable sets; unsolvability and the halting problem.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 692 - Programming Languages (4)

A study of programming languages from abstract and concrete points of view. Syntax, semantics; data objects and typing; control structures; scope of names; storage classes; binding times; parameter passing, value, reference, name, valuereplace; and procedures, side-effects, recursion, serial reusability, reentrancy.

Prerequisite: Assembly Language Programming. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 695 - Survey of Computer Hardware (4)

A survey of currently available computer equipment, together with some historical context. CPU's, microcomputers, minicomputers, large computers, super computers. Computer architecture, hierarchical storage, virtual storage and relocation, caches. Peripheral devices, storage systems, I/O channels. Communication hardware.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 697-Operating Systems (4)

A study of the functions and implementation of operating systems for various sizes and types of computers. Processor, storage, and device management. Paging algorithms, thrashing. File systems, concurrency, deadlocking, semaphores, and synchronization.
Prerequisite: Assembly Language Programming. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 717 - Video Game Programming (4)

General game architecture, asynchronous input, animated sprites, action-oriented A.I., collision detection, scrolling, sound clips, 3D graphics. Student projects involving development of several video games, both individually and in teams.
Prerequisite: CMP 338 and a strong foundation in objectoriented programming techniques. MAT 226 or its equivalent. Corequisite: MAT 226 or its equivalent.. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 731 - Systems Analysis and Design (4)

Examination of the stages of a computer system life cycle with a structured approach: problem definition, feasibility study, analysis, design, implementation, and maintenance. Techniques employed include data flow diagrams, data dictionaries, system flowcharts, cost/benefit analysis, decision tables, Warnier/Orr diagrams, HIPO charts, PERT, and the critical path method.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 736 - Introduction to Enterprise Computing (4)

Technical issues and principles for building distributed enterprise systems. Applications of these principles using the Java EE framework: server-side distributed component models, such as Enterprise Java Beans and Web Services.

Prerequisite: CMP 338 and proficiency in Java. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 737 - Software Engineering (4)

Structured coding techniques and coding style will be considered: single entry-single exit constructs, modularity (coupling, cohesion), data encapsulation, data abstraction, generic facilities, and type checking. Verification, validation, and testing techniques will be studied: static analysis, unit testing, input-output assertions, weakest precondition, structured induction, and symbolic execution.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 738-Communicating Robots (4)

Techniques and principles for building communicating robots; programming on resource-limited systems, designing communications protocols, and testing distributed algorithms. Project to involve building a robot to work/compete with other robots.
Prerequisite: CMP 338 or its equivalent. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
CMP 743 - Principles of Communications Networks (4)
Digital and analog communication, system architectures, and connection-oriented and connectionless service. The OSI model as a conceptual framework, and actual communication models and their protocols. Selected contemporary topics, such as communications security and the World Wide Web.
Prerequisite: A course in operating systems. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 747 - Linear Programming and Operations Research (4)

Theory and application of linear techniques. Convex sets and polyhedrons. The simplex method and the revised simplex method. Procedures to handle degeneracy. Duality theory and the dual simplex method. Elements of inventory and queueing theory. Industrial applications in scheduling and production control. Khachian's algorithm.
Prerequisite: One course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 758 - Database Systems (4)

Introduction to use and design of database systems. Topics include levels of extraction and views of data; data models, entity relationship, hierarchical, network, and relational data organization; data dependencies, normal forms; design algorithms; distributed databases; query languages.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 761 - Analysis of Algorithms (4)

Techniques for the design and comparison of algorithms. Several models of computation will be considered. Topics chosen from: searching and sorting algorithms, algorithms on graphs, products involving polynomials and matrices, arithmetic complexity, fast Fourier transform, and NPcomplete problems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 762 - Automata Theory (4)

Finite automata and related devices, the Chomsky hierarchy of formal grammars, equivalence of generative grammar characterizations of languages with recognition by restricted
classes of machines, normal forms, computational complexity, intractable problems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 765 - Artificial Intelligence (4)

Topics in artificial intelligence from the areas of problem solving, pattern recognition, speech recognition, and natural language processing. Representations and search methods in artificial intelligence. Computer implementation.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 767 - Computer Graphics (4)

Theory and applications of computer graphics. Graphics devices, line and circle drawing algorithms, two-dimensional transformations, clipping and windowing, interactive devices such as light pens and graphics tablets, three-dimensional graphics.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 768 - Simulation and Modeling (4)

An introduction to continuous and discrete simulation. System modeling, probabilistic methods, simulation languages. Simulation examples from science, industry, and computer systems.
Prerequisite: One course in data structures. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
CMP 770 - Compiler Construction (4)
Modern techniques of compiler design and construction. Topics from Lexical analysis, preprocessing. Grammars and their specifications, parsing techniques. General considerations about top-down and bottom-up parsers. Recursive descent, predictive parsing. LALR (1) grammars and parsers. Error recovery. Intermediate languages and intermediate code generation. Optimization techniques, flow analysis, value numbering, constant propagation, linear test replacement, hoisting, dead-code elimination. Storage mapping, register coloring, spilling. Code generation.
Prerequisite: Data structures. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 773 - Image Processing (4)

Image representation and display. Histograms, point, algebraic, and geometric operations on the image. Image compression. Edge detection. Measurement and classification of images. An introduction to three-dimensional image processing.
Prerequisite: A course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 774 - E-commerce Technologies (4)

Advanced Java enabling technologies for developing distributed Ecommerce applications. Topics to include: Introduction to J2EE, Remote Method Invocations (RMI), Java Server Page (JSP), Servlet, Java Database Connectivity (JDBC), Java API's and tools for XML and XSLT, Design Patterns and Architectural issues, and Case Studies. Discussion of Web services, including Simple Object Access Protocol (SOAP), Web Service Definition Language (WSDL), and Universal Description Discovery and Integration (UDDI), as well as building Web services based on the advanced Java technologies.

Prerequisite: Object-Oriented Programming. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## CMP 775 - Combinatorial and Graph Algorithms (4)

A study of some elementary and advanced combinatorial and graph algorithms, including dynamic programming, greedy methods, spanning and transversing graphs, shortest paths, maximum flow, matching and convex hulls.

Prerequisite: Course in data structures. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
CMP 776 - Parallel Algorithms and Architecture (4)
Survey of parallel computer architecture and models of parallel computation. Design of parallel algorithms. Examples of specific parallel algorithms for searching and sorting and for numerical, algebraic, and combinatorial computations.
Prerequisite: Course in data structures. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 788 - Topics in Computer Science (4)

(May be reelected for credit as the topic changes.) Advanced, in-depth studies of specialized topics of current interests in computer science.
Prerequisite: Dependent on topic (see instructor). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 793 - Independent Study3 (1)

(May be repeated up to a maximum of 3 credits). Program of individual study of various topics in computer science, under the guidance and supervision of a member of the Department.
Prerequisite: Graduate Advisor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
CMP 794 - Supervised Internship in Computer Science (2)
Supervised internship related to a graduate CMP course the student has completed. Students will write a paper comparing working practice to academic knowledge. Grade determined by the faculty supervisor in consultation with the on-site work supervisor.

Prerequisite: Departmental permission and 16 graduate CMP credits. Offered: Fall-Spring.
CMP 798 - Independent Study in Computer Science (4)
(May be reelected for credit with Graduate Adviser's permission.) Program of individual study of various topics in Computer Science, under the guidance and supervision of a member of the Department.

Prerequisite: Graduate Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## CMP 799 - Master's Thesis Research (4)

Preparation for the M.S. thesis under the guidance of a faculty thesis adviser.

Prerequisite: Permission of a faculty thesis adviser and the Graduate Adviser. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## COM - Multimedia Studies

COM 770 - Seminar in Communication Theory and Research (3)
Special topics and issues in contemporary research and theory construction in communication.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
COM 772 - Contemporary Rhetorical Theory (3)
Contributions made to rhetorical theory by British and American rhetoricians.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN - Dietetics, Foods \& Nutrition

## DFN 510 - Food Justice (3)

Examination of the relationship between race, ethnicity, class, culture and food systems. Analysis of the effect of corporate consolidation of food systems on food justice, sustainability and food security.
Prerequisite: Course work in nutrition. Department permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 520 - Food Science (4)

Study of the composition, preservation, sensory evaluation and safety of foods. Particular emphasis on the chemical changes and interaction of foods.

Prerequisite: CHE 120 and CHE 121, or equivalent. Departmental permission required. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

DFN 530 - Food Service Operations and Management (4)
Principles of food service delivery, organization, and administration, including volume food procurement and production, equipment, facility design, budgeting, hiring, quality standards, sanitation and food safety.
Prerequisite: DFN 220 or departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 542 - Theory \& Practice of Sport Nutrition (3)

The study of sports nutrition including energy required by exercise and sport, energy and nutrient intake, the importance of physiology, nutrition and exercise physiology and risks and benefits or ergogenic aids.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

DFN 610 - Nutrition: An Integrated Approach (3)
Discussion of nutrients on a cellular and organism level, emphasizing the biochemical and physiological aspects of nutrition. Cellular metabolism and tissue function in relation to nutrient requirements are discussed.
Prerequisite: DFN 445, BIO 181 \& BIO 182, CHE 244 \& CHE 245, or the equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
DFN 620 - Life-Cycle Nutrition (3)
Current concepts and principles in human nutrition, with application to the special needs at various stages in the life cycle in meeting nutritional problems. Includes conferences, fieldwork, and evaluation of fieldwork.

Prerequisite: 9 credits in nutrition and 6 credits in anatomy and physiology, or permission of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
DFN 621 - Ethnic and Therapeutic Meal Patterns (4)
An in-depth study of ethnic food patterns and their influences on health, with emphasis on scientific principles of food preparation and meal planning for vulnerable population groups and those on medical nutrition therapy regimens, including experiential work preparing ethnic and therapeutic recipes.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 630 - Special Topics in Nutrition (1-3)

(May be re-elected, as topics change, for a maximum of 6 credits). Consideration of recent developments in the field of nutrition.

Prerequisite: 9 credits of core nutrition courses, or permission of adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 637 - Nutrition Counseling (3)

Theory and application of verbal and written communication skills for individual and group-based, client-centered nutrition education and counseling.
Corequisite: DFN 641. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 640 - Nutrition and Chronic Diseases (3)

The relationship of diet to health promotion and disease prevention and management. Emphasis on current dietary patterns in the United States and other industrialized nations and the high incidence of degenerative diseases, such as arteriosclerosis, diabetes.
Prerequisite: BIO 181 and BIO 182, or the equivalents of these courses. Cross-Listed as: LEH DFN 640/HEA 640. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 641 - Public Health and Community Nutrition (3)

The relationship of diet to health promotion and disease prevention. The role of public, private, and voluntary organizations in providing nutrition-care services for ambulatory populations. Techniques for developing, funding, implementing, and evaluating projects in the community.
Prerequisite: DFN 620 or their equivalents. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## DFN 642 - Sports Nutrition (3)

Examination of energy and nutritional requirements in relation to the metabolism of sport and exercise activities. The course analyzes aspects of human nutrition that sustain and improve optimal performance for sport and exercise activities.
Prerequisite: 3 credits in Exercise Physiology. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## DFN 644 - Nutritional Biochemistry (4)

A study of the structure, digestion and metabolism of carbohydrates, lipids, proteins, vitamins and minerals in relation to food and nutrition. Nutrient bioavailability, transport and function at biochemical and physiological levels will be covered.

Prerequisite: Course work in nutrition, organic chemistry, human anatomy and physiology. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 651 - Medical Nutrition Therapy (3)

Nutrition assessment, diagnosis, intervention, monitoring and evaluation used to improve health and quality of life in patients with a variety of nutritionally-related conditions. Includes an exploration of evidence-based medical nutrition therapy in today's clinical practice. Case studies related to the
pathophysiology and treatment of nutritionally relevant acute and chronic disease will be emphasized.

Prerequisite: DFN 448. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 661 - Food Service Management (3)

Management theory with application to the food service industry. Emphasis on the management of human and financial resources, the practice of optimal standards of safety, sanitation, and nutrition, and the role of the computer as a management tool.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
DFN 692 - Independent Study in Clinical Nutrition (3)
(May be reelected for a maximum of 6 credits). Independent study under the guidance of a faculty member.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

DFN 693 - Independent Study in Community Nutrition (3)
(May be reelected for a maximum of 6 credits). Independent study under the guidance of a faculty member.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 730 - Supervised Professional Practice (3)

Course open only to those accepted into the Dietetic Internship.) Must be taken for three semesters for a maximum of 9 credits). A minimum of 400 hours of supervised professional practice at approved health care and community sites, hospital and clinical settings and food service establishments.

Corequisite: DFN 731.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 731 - Concepts and Methods of Dietetics Practice (3)

(Course open only to those accepted into Dietetic Internship.) Examination of current concepts and methods of dietetics practice to prepare students for entry-level professional practice. Includes on-campus didactic activities, group discussions, and the use of case studies to analyze and expand upon the fieldwork experience. Completion of the Dietetic Internship requires successful completion of the course for three semesters, to fulfill competencies outlined by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).

Corequisite: DFN 730. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 741 - Workshop in Nutrition Education (3)

Examination of current methods and materials used in nutrition education, including individual counseling and group
instruction. Emphasis is on development, use, and evaluation of appropriate teaching techniques. Includes workshops and fieldwork.

Prerequisite: DFN 641. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 761 - Nutritional Assessment (3)

Methods used to evaluate nutritional status, including the analysis and interpretation of assessment data and the identification of actual or potential nutritional problems. Emphasis on the significance of health history and anthropometric, dietary, laboratory, and physical findings in developing a clinically relevant assessment of the client's nutritional status.
Prerequisite: DFN 445 or DFN 610. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## DFN 771 - Nutritional Support (3)

The metabolic events associated with physiological stress and their importance in determining nutritional requirements. Identifying, assessing, and managing the patient at risk for protein calorie malnutrition. Emphasis on the use of enteral or parenteral nutrition support to achieve positive nitrogen balance, adequate nutrition status, or weight gain.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
DFN 791 - Research and Evaluation Methods in Nutrition (3)

Study of the design, methods, and tools used in nutrition research.
Prerequisite: Nine graduate credits in nutrition, plus HEA 600 or its equivalent. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## DFN 792 - Practicum in Clinical Nutrition (3)

Supervised placement in health care agencies. Conferences will be conducted to integrate theory with fieldwork experience.
Prerequisite: 18 credits of the core nutrition courses and adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 793 - Practicum in Community Nutrition (3)

Supervised placement in health care or community care agencies. Conferences will be conducted to integrate theory with fieldwork experience.
Prerequisite: 18 credits of the core nutrition courses and adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 794 - Thesis Seminar in Clinical Nutrition (3)

(May be reelected for a maximum of 6 credits). Individual research, under supervision, in clinical nutrition or nutritional biochemistry. Credit granted upon completion and acceptance of thesis.
Prerequisite: DFN 791 and Graduate Adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## DFN 795 - Thesis Seminar in Community Nutrition (3)

(May be reelected for a maximum of 6 credits). Individual research, under supervision, in community or public health nutrition. Credit is granted upon completion and acceptance of thesis.
Prerequisite: DFN 791 and Graduate Adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EBS - Bilingual Extension

## EBS 701 - Issues in Bilingualism (3)

The nature of bilingualism as a societal and individual phenomenon. In-depth study of linguistic, applied linguistic, psycholinguistic, sociolinguistic, neurolinguistic, and educational aspects of bilingualism. Ten hours of fieldwork in bilingual settings required.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EBS 741 - Psycho-educational Evaluation of Bilingual Children with Mild to Moderate Learning and Behavior Problems (3)

Theoretical bases and techniques underlying the psychoeducational evaluation of bilingual children with learning and behavior problems. The specific concerns related to the assessment of bilingual individuals will be highlighted, including attitudes of school personnel, test bias, misuse of tests, culture-specific tests and local norms, culture-fair tests, procedures and instruments for unbiased testing, and nondiscriminatory assessment models and practices for teachers and evaluators. Fifteen hours of fieldwork with bilingual children in school settings required.
Prerequisite: EBS 701, and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EBS 760 - The Bilingual Child with Mild to Moderate
Learning and Behavior Problems (3)
Study of the theories associated with learning disabilities and second-language learning as they relate to academic and behavioral problems presented by bilingual students in Special

Education programs, and implications of those theories for instruction.

Prerequisite: EBS 701 and permission of the advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EBS 761 - Curriculum Planning for Bilingual Students with Mild to Moderate Learning and Behavior Problems (3)

Curriculum development, use of specialized teaching techniques, and adaptation of instructional materials for bilingual students with mild to moderate learning and behavior problems.

Prerequisite: EBS 701, EBS 740, EBS 760, EBS 741 or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EBS 767 - Practicum in the Remediation of Bilingual Students with Mild to Moderate Learning and Behavior Problems (3)

Supervised practicum in the remediation of bilingual students with mild to moderate learning and behavior problems.
Prerequisite: EBS 741, EBS 760, EBS 761, and permission of the coordinator. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

EBS 768 - Practicum in the Assessment of Bilingual Students with Mild to Moderate Learning and Behavior Problems (3)
Supervised practicum in the assessment of bilingual students with mild to moderate learning and behavior problems.
Prerequisite: EBS 741, EDS 742, EBS 761 or permission of the coordinator. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## ECE - Early Childhood Ed

## ECE 758 - Intensive Teaching Internship and Seminar I

 (3)(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroo
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC - Early Childhood Ed

EDC 701 - Educational Psychology, Child Study, and Development (3)

30 hours plus fieldwork. Study of factors affecting development and human growth from conception through
eight years. Developmental theories and research findings related to the physical, emotional, cognitive, and social growth of the child. Personality theories related to the development of self-concept will be examined. Diagnostic and assessment techniques and measures will be studied. Specific child-study observational skills and procedures will be developed. Pupil evaluation, class assessment, and testing related to child study and development will be made possible through field experiences.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 702 - Educational Psychology, Learning (6)

60 hours plus fieldwork. Study of factors affecting learning from birth through eight years; learning theories and research findings related to the normal and special child; application of learning theories to mainstreamed classes. Emphasis on maturation, readiness, and basic-skill acquisition. Diagnostic and assessment techniques and measures will be applied in field settings. Three learning modules will be included: sensorimotor, communication and conceptual, logical, and reflective thinking.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDC 703 - Program Planning for Early Childhood (3)
30 hours plus confs. Analysis of factors affecting the design and development of educational programs in terms of educational goals and mental health principles.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 704 - Early Childhood Program Trends (3)

30 hours plus confs. Early childhood program trends in relation to historical, philosophical, and current community and social needs. Patterns will be examined and analyzed. A survey of a broad range of programs will be examined through the use of films, school visits, and speakers, as well as individualized field experiences.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 709 - Multilingualism in the Classroom, Birth to Grade Six (3)
Sociolinguistic and psycholinguistic foundations and theories of language acquisition for multilingual children. Study of educational policy and school programming for emergent bilingual learners Birth to Grade Six. Introduction to linguistically responsive classroom practices and teacher advocacy for multilingual families. Fifteen hours of fieldwork with English learners is required.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 713 - Literacy Development in Early Childhood Settings, Birth to Grade 2 (3)

Exploration of ways in which infants, toddlers, young children, young children who are learning English as a second language, and young children with special needs, develop language and literacy in family, early care, and school settings. Approaches to literacy development, assessment, and instruction, including use of media and technology within an integrated curriculum that meets National and State standards, and the needs of children with disabilities. Visits to early childhood settings with diverse populations, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDC 721, EDC 722. Corequisite: EDC 714. No student can receive credit for both EDE 713 and EDC 713. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 714 - Social Studies Concept Development in Early

 Childhood Settings, Birth to Grade 2 (3)Exploration of ways in which infants, toddlers, young children, and young children who are learning English as a second language, and young children with special needs develop an understanding of basic human needs and interdependence in family, early care, and school settings. Approaches to social studies, assessment, and instruction, including use of media and technology within an integrated curriculum that meets national and State standards, and the needs of children with disabilities. Visits to early childhood settings with diverse populations, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDC 721 EDC 722. Corequisite: EDC 713. No student can receive credit for both EDE 714 and EDC 714. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 715 - Mathematical Concept Formation in Early Childhood Settings, Birth to Grade 2 (3)

Exploration of ways in which infants, toddlers, young children, young children who are learning English as a second language, and young children with special needs develop an understanding of mathematical concepts in family, early care, and school settings. Approaches to assessment and documentation in young children's mathematics development through the use of concrete materials and media and technology consistent with national and State Standards and the needs of children with disabilities. Visits to early childhood settings with diverse populations, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDC 721, EDC 722. Offered: Fall-Spring.

## EDC 716 - Developing Young Children's Concepts in Art, Birth to Grade 2 (3)

Exploration of ways in which young children, young children who are learning English as a second language, and young children with special needs, develop artistic expression and appreciation of art in family, neighborhood, early care, and school settings. Approaches to assessment and documentation of children's artistic development and expressions of ideas in art using concrete materials and appropriate tools from technology, consistent with National and State Standards and the needs of children with disabilities. Visits to early childhood settings with diverse populations, action research, development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDC 721, EDC 722. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 717 - Developing Science Concepts in Early Childhood Settings, Birth to Grade 2 (3)
Exploration of ways in which infants, toddlers, young children, young children who are learning English as a second language, and young children with special needs develop an understanding of science in family, early care, and school settings. Approaches to science exploration, investigation, documentation and assessment, including technology within an integrated curriculum to meet. National and State Standards and the needs of children with disabilities. Visits to early childhood settings with diverse populations, and action research, and the development of an academic portfolio. Ten hours of fieldwork required.

Prerequisite: EDC 721, EDC 722, one undergraduate or graduate laboratory science course. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 718 - Developing Music Appreciation in Early Childhood Settings, Birth to Grade 2 (3)

Exploration of ways in which infants, toddlers, young children and young children who are learning English as a second language, and young children with special needs learn to appreciate and create music in family, early care, and school settings. Approaches to music development, assessment, and instructional strategies, including use of media and technology within an integrated curriculum that meets national and State Standards and the needs of children with disabilities. The course requires visits to early childhood settings with diverse populations, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDC 721, EDC 722. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 721 - Child Study and Developmental Assessment, Birth to Grade 2 (3)

Extended study of the integrated factors affecting infants, toddlers, and young children's physical, social, emotional, cognitive, language, and aesthetic development through observation, case study, and exposure to research and dominant theories of child development and learning through multiple technologies. Assessment of how young children differ in their development and approaches to supporting individual development; assessment of conditions that affect young children's development, including risk factors and patterns of specific disabilities, and cultural and linguistic diversity and significance of sociocultural and political contexts. Requires fieldwork with children, action research, and the development of an academic portfolio.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 722 - Child Development and Program Design in

 Early Childhood Settings, Birth to Grade 2 (3)Design, implementation, and assessment of developmentally appropriate programs and instructional practices based on: knowledge of the needs and interests of young children including those with disabilities and diverse cultural and linguistic backgrounds; knowledge of the community; curriculum goals; and City, State, and national standards. Study of model programs for, and issues related to, programs for young children reflecting the sociocultural, historical, and political forces that influence the diverse delivery systems through which programs are offered for young children and their families. Focus on the health, safety, physical, emotional, social, cognitive, cultural, and aesthetic aspects of programs. Requires student observation, action research, appropriate use of media and technology, and an academic portfolio.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 727 - Teaching English as a Second Language (Pre-K to Grade 6) (3)

Methods and materials for teaching children whose native language is not English and children with special needs. Focus on how to teach content with an emphasis on English language arts, using English as a Second Language methodologies. Attention on addressing the influence of language, cultural and community orientation, and prior schooling experiences on learning in a second language including children with disabilities. This course requires 15 hours of fieldwork with children in ESL classrooms.
Prerequisite: Competency Area I and Step 2; EDC 738/ EDE 738, EBS 701, and one of the following: EDC 739/ EDE 739 or EDC 733/ EDE 733. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 730 - Understanding and Documenting Young Bilingual Children's Literacy Development and Concepts of the Wo (6)

Exploration of the diverse ways that infants, toddlers, and young bilingual, bicultural children develop language and literacy. Understanding of basic human needs and interdependence in family, early care, and school settings. Study of approaches to literacy and the social studies documentation and assessment and instructional strategies in native and second languages through media and technology within an integrated curriculum. Requires fieldwork with children, action research, and an academic portfolio.
Prerequisite: Successful completion of Competency Area I and Step 2. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 731 - Understanding and Documenting Young Children's Literacy Development and Concepts of the World Around (6)

Exploration of diverse ways in which infants, toddlers, and young children develop language and literacy and understand basic human needs and human interdependence in family, early care, and school settings. Study of approaches to literacy and the social studies documentation and assessment and instructional strategies, through media and technology as appropriate within an integrated curriculum. Requires fieldwork with children, action research, and an academic portfolio.
Prerequisite: Successful completion of Competency Area I and Step 2. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 732 - Understanding and Documenting Young Children's Concepts of Mathematics and Art, Birth to Grade 2 (6)

Exploration of the diverse ways in which infants, toddlers, and young children develop an understanding of mathematical concepts and the appreciation and creation of art in family, early care, and school settings. Study of approaches to formal and informal documentation and assessment of children's development in mathematics and art to insure the continuous development of problem-solving processes and expression of ideas in both mathematics and art. Construction of meaning through a variety of instructional opportunities that support the intellectual and social development of diverse learners, using appropriate tools from media and technology, concrete materials, drawings and diagrams, analogy, and modeling. Requires fieldwork with children, action research, and an academic portfolio.
Prerequisite: Successful completion of Competency Area I and Step 2. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 733 - Understanding and Documenting Young Children's Concepts of the Sciences and Music, Birth to Grade 2 (6)

Exploration of the diverse ways in which infants, toddlers, and young children develop an understanding of the sciences and come to appreciate and create music in family, early care, and school settings. Study of approaches to the sciences and music documentation and assessment and instructional strategies, through media and technology as appropriate within an integrated curriculum. Requires fieldwork with children, action research, and an academic portfolio.
Prerequisite: Successful completion of Competency Area I and Step 2, BIO 150, CHE 136, PHY 135, GEO 166, or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 734 - Programs and Environments for Infants and Toddler, Birth to 3 Years (3)

Study of five areas of infant and toddler development (physical, cognitive, emotional, social, and language) including children who are learning English as a second language and children with special needs. Implementation of Developmental Profiles for infants and toddlers in care as a basis for program development and curriculum design. Design and implementation of appropriate environments for infants and toddlers considering cultural and family contexts. Ten hours of observations in infant and toddler settings, action research, use of technology, and an academic portfolio.

Prerequisite: EDC 721 and EDC 722. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDC 735 - Family, School, and Community Interaction in Early Childhood Settings, Birth to Grade 2 (3)

Study of a theoretical framework for developing skills among teachers to support parental involvement in the education of infants, toddlers, and young children at home, in early care, and in school settings. Emphasis on culturally and economically diverse communities and relationships to community organizations. Fieldwork in early childhood settings and community organizations serving diverse populations, action research, and an academic portfolio.
Prerequisite: EDC 721 and 722. No student can receive credit for both EDC 735 and EDE 735. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 738 - Literacy in Bilingual/Bicultural Early

 Childhood Settings, Birth to Grade 2 (3)Exploration of ways that infants, toddlers, young bilingual, bicultural children, and children with special needs develop language and literacy in family, early care, and school settings. Approaches to literacy assessment and instruction in both the native and second languages, including use of media
and technology within an integrated curriculum to meet national, State standards, and the needs of children with disabilities. Visits to early childhood bilingual settings, action research, and the development of an academic portfolio. Ten hours of fieldwork required.

Prerequisite: EDC 721, EDC 722 and SPE 703 or EBS 701. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 739 - Social Studies Concept Development in Bilingual/Bicultural Early Childhood Settings, Birth to Grade2 (3)
Exploration of ways infant, toddlers, and young bilingual, bicultural children and children with special needs develop an understanding of basic human needs and interdependence in family, early care, and school settings. Approaches to social studies concepts, assessment, and instruction in both the native and second languages, including use of media and technology within an integrated curriculum to meet national and State standards, and the needs of children with disabilities. Visits to early childhood bilingual settings, action research, and the development of an academic portfolio. Ten hours of fieldwork required.

Prerequisite: EDC 721, EDC 722 and SPE 703 or EBS 701. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 745 - Teaching Internship and Seminar I (1)

(For matriculated students in Early Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: Matriculated status. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 746 - Teaching Internship and Seminar II (1)

(For matriculated students in Early Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: EDC 745. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 747 - Teaching Internship and Seminar III (2)

(For matriculated students in Early Childhood Education who are not certified to teach but who assume teaching positions just prior to, or at the outset of, their second semester of matriculation.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-to-day, on-site classroom teaching practice.

Prerequisite: Matriculated status: 12-15 credits. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDC 748 - Teaching Internship and Seminar IV (2)

(For matriculated students in Early Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: EDC 746 or EDC 747. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDC 749 - Teaching Internship and Seminar V (2)

(For matriculated students in Early Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: EDC 748. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 756 - Teacher as Researcher and Writer (3)

Continued development and utilization of research skills appropriate to an area of specialization in early childhood culminating in a written capstone project.
Prerequisite: Successful completion in Competency areas I and II. No student can receive credit for both EDC 756 and EDE 756. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 757 - Ethics and Professionalism in Early Childhood Teaching (3)
Study of the early childhood teaching profession, its multiple historical, philosophical, and social foundations. Analysis of teaching practices through the use of self-assessment as a form of evaluation and professional portfolio development. Examination of the purpose and meaning of teaching and the contributions made to the profession through analysis of the students' own teaching experiences.
Prerequisite: Competency Area II and Step 4. *For certified students only. No student can receive credit for both EDC 757 and EDE 757. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## EDC 758 - Intensive Teaching Internship and Seminar I (3)

(For matriculated students who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-to-day, on-site classroom teaching practice.

Prerequisite: Matriculated status. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 759 - Intensive Teaching Internship and Seminar II (3)
(For matriculated students in Early Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: EDC 758. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 770 - Advanced Studies in the Curriculum I and II (3)

Curriculum content, methods, and materials in Early Childhood Education as related to affective, cognitive, and social development within the Early Childhood Education program. Different curricular areas will be presented for special consideration each semester.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 771 - Advanced Studies in the Curriculum I and II

 (3)Curriculum content, methods, and materials in Early
Childhood Education as related to affective, cognitive, and social development within the Early Childhood Education program. Different curricular areas will be presented for special consideration each semester.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 773 - Parent-Teacher-Child Relationships (3)

Designed to help those in early childhood and elementary education understand and effectively handle questions arising from parent-child relationships and teacher-parent-child relationships. Readings, case histories, and data drawn from individual experiences will be used to explore the dynamics of the most frequently encountered problems of children in classrooms. Methods will be developed to form constructive relationships with children, parents, and ancillary school or social agency personnel.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDC 776 - Special Studies in Early Childhood Education (1-3 (May be repeated for up to 6 credits with permission of Graduate Adviser as the topic changes.))
Investigation of specific developments, problems, or practices in the field of Early Childhood Education. Topics and credits will vary and be announced each semester.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 778 - Workshop Teaching as Process in Early Childhood Education (3)

Providing an understanding of the process of teaching. Analysis of the role of the teacher through an examination of literature, films, and related research. Development of models of teaching; examination and refinement of teaching skills; and examination of the hierarchal functioning of teachers in classrooms, schools, and the community.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 779 - Administration and Supervision in Early Childhood Education (3)

Responsibilities and functions of administrators and supervisors in staff relationships. Agency and community contacts will be analyzed. Personnel, budget, supplies, and inservice training responsibilities related to nursery schools, child-care centers, private schools, and other institutions for young children will be examined.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDC 781 - Supervised Student Teaching in Bilingual

 Settings, Pre-K to Grade 2 (3)The student teaching experience will be conducted collaboratively with college, school, and community partners in providing opportunities for prospective teachers to continue to establish best professional practices developed in the Certification Sequence and successfully evaluate the outcomes of those practices. The clinical experience will take place in multicultural settings that include students with disabilities and students of different childhood age/grade levels (Grades 1 to 6). Student teachers are required to spend five full days each week in their school placement.
Prerequisite: Successful completion in Competency Areas I and 12 credits in Competency II. For Bilingual students EDC 738, EDC 739, EDC 727, EBS 701. Corequisite: EDC 795. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 783 - Student Teaching Seminar (3)

Utilization of the classroom setting as laboratory; realistic examination of the multidimensional issues that reflect the complexities of teaching. Further development of the ability to problem solve, to consider flexible and varied interactions with children, and to reflect so that students develop as competent, qualified, and caring learners/teachers. Analysis and discussion of concerns, fears, views within a safe, supportive environment. Completion of a professional electronic portfolio.

Prerequisite: EDE 721, EDE 722, and 12 credits of methods courses. Corequisite: EDE 756; EDE 795, EDE 782 or EDE 784. Cross-Listed as: LEH EDC 783/EDE 783. Requirement

Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDC 784 - Supervised Student Teaching Internship, Birth to Grade 2 (3)

Collaboration between college and school partners to provide opportunities for uncertified teachers in classrooms to continue to establish best professional practices, with emphasis on all learners, developed in the Certification Sequence and successfully evaluate the outcomes of those practices in the teacher's current setting, supervised by College faculty.
Prerequisite: Successful completion in Competency Areas I and 12 credits in Competency II. Corequisite: EDC 795. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 790 - Supervised Student Teaching: Pre-K to Grade 2 (3)

The student teaching experience will be conducted collaboratively with college, school, and community partners in providing opportunities for prospective teachers to continue to establish best professional practices with emphasis on all learners, developed in the Certification Sequence and successfully evaluate the outcomes of those practices. The clinical experience will take place in a variety of settings that include culturally diverse populations, students with disabilities, and students of different age/grade levels (Pre-K, K, and Grades 1-2). Student teachers are required to spend five full days each week in their school placement, a minimum of 300 hours, and two hours each week in a professional development workshop.
Prerequisite: Successful completion in Competency Areas I and 12 credits in Competency II. Corequisite: EDC 795. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDC 795 - Student Teaching/Intership Seminar (3)

A weekly forum for students to analyze teaching practices through the use of a variety of assessments as a form of evaluation. Development of the ability to problem solve, to consider flexible and varied interactions with diverse children, and to reflect in order to support students development as competent, qualified, caring, and ethical professionals. Examination of the purpose and meaning of teaching through analysis and discussion of students own teaching experiences, such as concerns, fears, and views within a safe, supportive environment, as well as others' contributions made to the profession. Development of a professional portfolio. Required state certification student teaching assessments supported through the course. This is a credit-bearing course that will use a Pass/No Pass grading basis.

Prerequisite: Successful completion of foundation courses and 12 credits of methods courses. Corequisite: EDC 756, EDC 790, EDC 781 or EDC 784. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE - Elementary Ed

## EDE 510 - Schools in a Bilingual/Bicultural Hispanic Community (3)

Analysis of the structure and function of schools in a bilingual/bicultural Hispanic community and the influence of the community on the development of school programs. (English/Spanish)

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 512-A Multi-arts Approach to Curriculum Development in the Elementary School with Emphasis on Hispanic C (3)

An exploration of historic and contemporary Hispanic arts and the development of curriculum units for bilingual/bicultural students.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 611 - Seminar in Elementary School Teaching, I and II (1)

Analysis of problems or practices in elementary school teaching.

Prerequisite: Open only to matriculants in the Program in Elementary Education who are teaching full time and have no previous courses in elementary education. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 612 - Seminar in Elementary School Teaching, I and II (1)

Analysis of problems or practices in elementary school teaching.

Prerequisite: Open only to matriculants in the Program in Elementary Education who are teaching full time and have no previous courses in elementary education. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 621 - Introduction to Teaching Reading in the Elementary School (3)

(For students who have never taken a course in the teaching of reading.) A study of the reading process and strategies for teaching reading, including language development, reading readiness, word recognition, analysis, and comprehension. Formal and informal measures for assessing pupil needs, organizational and classroom management techniques,
instructional approaches, and materials for elementary schools will be examined. Ten hours of fieldwork required.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDE 622 - Advanced Methods in Teaching Reading in Elementary School (3)

A study of strategies for teaching reading, including critical thinking and study skills and content area reading. Formal and informal measures for assessing pupil needs, organizational and classroom management techniques, instructional approaches, and materials for the reading experience will be examined.

Prerequisite: EDE 630 and EDE 621. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 630 - Psychology of Development and Learning in Elementary Education (3)

A beginning course for students who have not taken a course in educational psychology. Study of theories and research regarding development and learning from birth through early adolescence, with application to the elementary classroom. Classroom teaching discussed and evaluated in relation to theories, research, and professional development.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDE 632 - Curriculum Development through the Social Sciences in the Elementary School (3)

Investigation of basic principles of curriculum development in elementary schools, using the content and methodologies of the social sciences to organize social studies instruction. Emphasis on multi-ethnic/multicultural education in a pluralistic society.
Prerequisite: EDE 630 (or equivalent). Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 640 - Teaching Mathematics in the Elementary School (3)

Study of the organization, content, and methods of teaching in elementary mathematics programs. Emphasis on using research results to evaluate critically existing curricula and to organize teaching approaches that lead to the development of problem-solving skills.
Prerequisite: Passing grade on Departmental Mathematics Content Exam. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## EDE 651 - Teaching Science in the Elementary School (3)

Improving the elementary school teacher's cognitive knowledge in the sciences. Helping the teacher utilize concepts suggested by content for the purpose of developing
activities and materials suitable for the effective teaching of science as an inquiry process.
Prerequisite: EDE 630 (or equivalent). Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 700 - Psychology in Education, Group Dynamics (3)

A laboratory course using here-and-now experiences in studying interpersonal perceptions, communication networks, group decision-making patterns, leadership, and structure. Development of skills in diagnosing and improving group functioning.
Prerequisite: Full-time teaching experience. Cross-Listed as: LEH EDE 700/ESC 700. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 701 - Psychology in Elementary Education, Advanced Educational Psychology (3)

Current psychological theory related to children's basic learning processes. Consideration of multicultural, economic, ethnic, and racial factors in society as they affect classroom learning. Formal and informal approaches to the evaluation of learning as a basis for curriculum decision-making.

Prerequisite: Previous course in educational psychology. Corequisite: Currently teaching.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 702 - Foundations of Education (3)

Studies of critical periods and movements in American education history, with emphasis on social, political, and intellectual developments and the role of leading education theorists as agents of change in education.
Cross-Listed as: LEH ESC 702/EDE 702. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 703 - School and Community (3)

Analysis, from historical and contemporary perspectives, of education as a social process and social institution in an urban setting. Emphasis on the teacher's role as facilitator of understanding and change with parents, children, and community in multicultural, economic, ethnic, and racial school settings. A minimum of ten hours community field experience is required.

Cross-Listed as: LEH EDE 703/ESC 703. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 704 - Educational Evaluation (3)

Fundamentals of measurement and statistics for the classroom teacher. Emphasis on the planning, construction, administration, analysis, and evaluation of tests and examinations used by the teacher, including teacher-made and
standardized tests. The collection and analysis of data are required.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 705 - Project Seminar I (3)

Formulation by each student of a significant project related to teaching in early childhood or elementary education: definition, design, method for carrying out the project, recapitulation of relevant material, and completion of an outline. Students will work individually, or in small groups, with an instructor.

Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 706 - Project Seminar II (3)

Completion of the project undertaken in EDE 705, including a written report on the research or curriculum development carried out, results of the work, basis for evaluating the results, and the author's recommendations to others interested in the subject.
Prerequisite: EDE 705. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 707 - Introduction to Educational Research I (3)

Formulation of a research problem by each student; its definition, the method of study appropriate to the problem, recapitulation of pertinent studies, and collection and analysis of data. Students will work individually with a Graduate Adviser and in small groups.
Prerequisite: EDE 704 and instructor's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 708 - Introduction to Educational Research II (3)

Formulation of a research problem by each student; its definition, the method of study appropriate to the problem, recapitulation of pertinent studies, and collection and analysis of data. Students will work individually with a Graduate Adviser and in small groups.
Prerequisite: EDE 707. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 709-Multilingualism in the Classroom, Birth to Grade Six (3)

Sociolinguistic and psycholinguistic foundations and theories of language acquisition for multilingual children. Study of educational policy and school programming for emergent bilingual learners Birth to Grade Six. Introduction to linguistically responsive classroom practices and teacher advocacy for multilingual families. Fifteen hours of fieldwork with English learners is required.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 712 - Learning and Teaching Literacy in Childhood Settings I: Literacy in the Primary Grades (3)

Introduction to language and literacy development from kindergarten to grade 3 . Focuses on the processes of reading, writing, listening and speaking and ways to design appropriate teaching strategies for supporting children's growth across these four areas of literacy development. Processes of language and literacy development; focus on phonological awareness; phonics; word recognition; comprehension; fluency; and vocabulary development. Ten hours of fieldwork is required.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 713 - Learning and Teaching Literacy in Childhood Settings II: Literacy in Grades 3 to 6 (3)

An introduction to language arts theory and methodology for teaching in the later elementary grades, grades 3-6. Readings focus on theory, research, and instructional strategies that reflect on current understandings of literacy learning in linguistically and culturally diverse school settings. This knowledge base will help students critically analyze methods, instruction, and curricular choices in the language arts. A variety of effective teaching practices will be explored that address the development of reading, writing, listening, and speaking, including how to employ a variety of literacy assessment tools to plan instruction for students with diverse learning needs. Ten hours of fieldwork is required to complete course assignments and requirements.
Prerequisite: EDE 721 and EDE 722. Corequisite: EDE 714. No student can receive credit for both EDE 713 and EDC 713. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 714 - Learning and Teaching Social Studies in Childhood Settings:Grades 1 to 6 (3)

Exploration of the diverse ways in which children, including children who are learning English as a second language, and children with special needs, develop an understanding of basic human needs and interdependence in family, neighborhood, and school settings. Study of approaches to social studies, and assessment and instructional strategies, through media and technology, within an integrated curricula to meet State and national standards. Ten hours of fieldwork required with children in childhood settings with diverse populations, integrative seminar, action research, and development of an academic portfolio.

Prerequisite: EDE 721, EDE 722. Corequisite: EDE 713. No student can receive credit for both EDE 714 and EDC 714.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 715 - Learning and Teaching Mathematics in Childhood Settings: Grades 1 to 6 (3)

Exploration of the diverse ways in which children, including children who are learning English as a second language, and children with special needs develop an understanding of mathematical concepts in family, neighborhood, and school settings. Study of approaches to assessment and documentation of children's development in mathematics to insure continuous development of problem-solving processes and expression of ideas in mathematics. State and national standards are met using appropriate tools from media and technology, concrete materials, drawings and diagrams, analogy and modeling. Ten hours of fieldwork required in childhood settings with diverse populations, action research, and the development of an academic portfolio.

Prerequisite: EDE 721, EDE 722. Corequisite: EDE 716. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 716 - Learning and Teaching Art in Childhood Settings: Grades 1 to 6 (3)

Exploration of the diverse ways in which children, including children who are learning English as a second language, and children with special needs, develop the appreciation of art in family, neighborhood, and school settings. Study of approaches to assessment and documentation of children's artistic development to include focus on problem-solving processes and expression of ideas in art. Appropriate tools from media and technology, concrete materials, drawings and diagrams, analogy and modeling will be utilized to meet State and national standards. Ten hours of fieldwork required in childhood settings with diverse populations, action research, and the development of an academic portfolio.

Prerequisite: EDE 721, EDE 722. Corequisite: EDE 715. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 717 - Learning and Teaching Science in Childhood Settings: Grades 1 to 6 (3)

Exploration of ways in which children, including children who are learning English as a second language, and children with special needs develop an understanding of science in family, neighborhood, and school settings. Approaches to science, documentation and assessment of instruction, including the use of media and technology within an integrated curriculum to meet State and national standards. Ten hours of fieldwork required in childhood settings with diverse populations, action research, and the development of an academic portfolio.

Prerequisite: EDE 721 and EDE 722, one undergraduate or graduate laboratory science course. Corequisite: EDE 718.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 718 - Learning and Teaching Music in Childhood Settings: Grades 1 to 6 (3)

Exploration of the diverse ways in which children, including children who are learning English as a second language, and children with special needs come to appreciate and create music in family, neighborhood, and school settings. Study of approaches to music assessment and instructional strategies through media and technology as appropriate within an integrated curriculum to meet State and national standards. Ten hours of fieldwork required in childhood settings with diverse populations, action research, and the development of an academic portfolio.
Prerequisite: EDE 721, EDE 722. Corequisite: EDE 717. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 721 - Child Study and Developmental Assessment, Grade 1 to 6 (3)

Study of the integrated factors affecting children's physical, social, emotional, cognitive, language, and aesthetic development. Exposure to dominant theories of child development and learning through multiple technologies. Informal assessment of how children differ in their development and conditions that affect children's development, including risk factors, patterns of specific disabilities, cultural and linguistic diversity, and sociocultural and political contexts. Observations in childhood settings with diverse populations, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Corequisite: EDE 722. No student can receive credit for both EDE 721 and EDC 721.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 722 - Program Design in Childhood Settings: Grades 1-6 (3)

Design, implementation, and assessment of developmentally appropriate programs and instructional practices based on knowledge of the needs and interests of children, including those with disabilities and diverse cultural and linguistic backgrounds, as well as on knowledge of the community; of curriculum goals; and of City, State, and national standards. Study of model programs for, and issues related to, programs for children reflecting sociocultural, historical, and political forces that influence the diverse delivery systems through which programs are offered for children and their families. Focus on the health, safety, physical, emotional, social, cognitive, cultural, and aesthetic aspects of programs. Observations in childhood settings with diverse populations, action research, appropriate use of media and technology,
development of an academic portfolio. Ten hours of fieldwork required.
Corequisite: EDE 721. No student can receive credit for both EDE 722 and EDC 722.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 727 - Teaching English as a Second Language (Pre-K to Grade 6) (3)

Methods and materials for teaching children whose native language is not English and children with special needs. Focus on how to teach content with an emphasis on English language arts, using English as a Second Language methodologies. Attention on addressing the influence of language, cultural and community orientation, and prior schooling experiences on learning in a second language including children with disabilities. This course requires 15 hours of fieldwork with children in ESL classrooms.
Prerequisite: Competency Area I and Step 2; EDC 738/ EDE 738, EBS 701, and one of the following: EDC 739/EDE 739 or EDC 733/ EDE 733. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 728 - Literature in the Elementary School (3)

A critical survey of the literature available for elementary school children, with special emphasis on the use of such material for enriching a basal reading program and/or serving in an individualized reading program.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDE 730 - Science Instruction in the Elementary School, Advanced Course (3)

A course designed to supplement and extend the elementary school teacher's abilities in science teaching. Includes the detailed planning of several science units. Special attention is given to science demonstrations and laboratory work, including the assembly of apparatus and the presentation of the unit for class discussion.
Prerequisite: One year of college laboratory science and a previous course in the teaching of science in the elementary school. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 731 - Problems of Coordinating Science Instruction in the Elementary School (3)

A course designed to prepare resource teachers for coordinating sciences in the elementary schools. It will include a study of the objectives and content of elementary science curricula; training in the methods and techniques of elementary science teaching; demonstration and laboratory materials, textbooks, reference books, periodicals, and other teaching aids; the problems of ordering and storing science supplies; the use of audiovisual devices; community resources
and the conducting of field trips; participation in science fairs and exhibits; science assemblies; and the evaluation of elementary science teaching. One of the important activities will be setting up grade conferences, workshops, and other types of training programs for teachers.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 732 - Curriculum Development in Environmental Education for the Elementary School (3)

3 hours, including confs. and/or fieldwork. Study of the environment as an integrating theme in the elementary school curriculum. Physical, biological, psychological, and sociological environmental factors: their relationships and interrelationships are considered. Current trends and developments in curriculum, teaching techniques and materials, and community resources will be explored.

Prerequisite: One year of a college laboratory science and one course in the social sciences. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 733 - Learning and Teaching Science and Music in

 Childhood Settings- Grades 1 to 6 (6)Exploration of the diverse ways in which children develop an understanding of the sciences and come to appreciate and create music in family, neighborhood, and school settings. Study of the approaches to the sciences and music documentation, and assessment and instructional strategies, through media and technology as appropriate within an integrated curriculum. The course requires fieldwork with children in childhood settings with diverse populations, action research, and the development of an academic portfolio.

Prerequisite: Competency Area I and Step 2. No student can receive credit for both EDE 733 and EDC 733. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 735 - Family, School, and Community Interaction in Childhood Contexts: Grades 1 to 6 (3)

Study of a theoretical framework for developing skills among teachers to support parental involvement in the education of children at home and in varied childhood settings. Emphasis on culturally and economically diverse communities and relationships to community organizations. Ten hours of required fieldwork in childhood settings and community organizations serving diverse populations, action research, the appropriate use of media and technology, and the development of an academic portfolio. No student can receive credit for both EDE 735 and EDC 735.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDE 738 - Learning and Teaching Literacy in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 (3)

Exploration of the diverse ways that bilingual, bicultural children and children with special needs develop language and literacy in family, neighborhood, and school settings. Study of approaches to literacy, and assessment and instructional strategies in both the native and second languages, through media and technology as appropriate within an integrated curriculum to meet State and national standards, and the needs of children with disabilities. The course requires visits to childhood bilingual settings, action research, and the development of an academic portfolio. Ten hours of fieldwork required.
Prerequisite: EDE 721, EDE 722. Corequisite: EDE 739. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 739 - Learning and Teaching Social Studies in Bilingual/Bicultural Childhood Settings: Grades 1 to 6 (3)

Exploration of the diverse ways that bilingual/bicultural children and children with special needs develop an understanding of basic human needs and interdependence in family, neighborhood, and school settings. Study of approaches to social studies, and assessment and instructional strategies in both the native and second languages, through media and technology as appropriate within an integrated curriculum to meet State and national standards, and the needs of children with disabilities. The course requires visits to childhood bilingual settings, action research, and the development of an academic portfolio. Ten hours of fieldwork required.

Prerequisite: EDE 721, EDE 722. Corequisite: EDE 738.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 740 - Studies in the Teaching of Elementary Mathematics, Advanced Course (3)

Teaching and learning problems in developing mathematical concepts and computational skills in the elementary and intermediate school years. Recent research and new programs in the teaching of elementary school mathematics.

Prerequisite: A previous course in methods of teaching mathematics in the elementary school. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 741 - Materials and Methods for Mathematics Education (3)

Development and use of mathematics laboratories and multimedia approaches for teaching elementary school mathematics.

Prerequisite: EDE 740. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 742 - Supervision and Coordination of Elementary School Mathematics (3)

Development of elementary school mathematics programs including: the psychology of learning mathematics, testing and evaluation, selection of textbooks and other materials, and problems in supervision.
Prerequisite: EDE 740. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 743 - Diagnosis of Difficulties in Learning Elementary School Mathematics (3)

An investigation of children's difficulties in learning elementary school mathematics. Procedures for measuring achievement in mathematics. Practice, under supervision, in diagnosing particular students' difficulties with mathematics.
Prerequisite: EDE 740. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDE 744 - Practicum in Developing Remedial Programs for Children Experiencing Difficulty in Learning Elementary Mathematics (3)
Using research for designing, implementing, and evaluating remedial elementary mathematics programs for children with specific difficulties in learning mathematics.

Prerequisite: EDE 743. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 745 - Teaching Internship and Seminar I (1)

(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support of students via interaction with peers and Lehman faculty around day-to-day, on-site classroom teaching practice.
Prerequisite: Matriculated status. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDE 746 - Teaching Internship and Seminar II (1)
(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.

Prerequisite: EDE 745. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 747 - Teaching Internship and Seminar III (2)

(For matriculated students in Childhood Education who are not certified to teach but who assume teaching positions just prior to or at the outset of their second semester of matriculation.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-to-day, on-site classroom teaching practice.

Prerequisite: Matriculation: 12-15 credits. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 748 - Teaching Internship and Seminar IV (2)

(For matriculated students in childhood education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.
Prerequisite: EDE 746 or EDE 747. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 749 - Teaching Internship and Seminar V (2)

(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.

Prerequisite: EDE 748. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDE 750 - Studies in the Teaching of Elementary Social Studies, Advanced Course (3)
Teaching and learning problems in social studies programs in the elementary school. Recent research and new curricula in elementary social studies.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
EDE 751 - Learning and Teaching Literacy and the Social Studies in Bilingual/Bicultural Childhood Settings- Gr (6)
Exploration in the diverse ways that bilingual, bicultural children develop language and literacy and an understanding of basic human needs and human interdependence in family, neighborhood, and school settings. Study of approaches to literacy and social studies documentation, and assessment and instructional strategies, in both native and second languages through media and technology as appropriate within an integrated curriculum. Requires fieldwork with children in childhood bilingual settings, action research, and development of academic portfolio.
Prerequisite: Competency Area I and Step 2. No student can receive credit for both EDE 751 and EDC 730. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDE 752 - Learning and Teaching Literacy and the Social Studies in Childhood Settings- Grades 1 to 6 (6)

Exploration of the diverse ways in which children develop language and literacy and an understanding of basic human needs and human interdependence in family, neighborhood, and school settings. Study of approaches to literacy and social studies documentation, and assessment and instructional
strategies, through media and technology as appropriate within an integrated curriculum. Requires fieldwork with children in childhood settings with diverse populations, integrative seminar, action research, development of an academic portfolio.

Prerequisite: Competency Area I and Step 2. No student can receive credit for both EDE 752 and EDC 731. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 753 - Learning and Teaching Mathematics and Art in Childhood Settings- Grades 1 to 6 (6)

Exploration of the diverse ways in which children develop an understanding of mathematical concepts and the appreciation of art in family, neighborhood, and school settings. Study of approaches to mathematics assessment and documentation of children's development in mathematics and art to insure the continuous development of problem-solving processes and expression of ideas in both mathematics and art. Construction of meaning through instructional opportunities that support the intellectual and social development of diverse learners, using appropriate tools from media and technology, concrete materials, drawings, and diagrams, analogy, and modeling. Course requires fieldwork with children in childhood settings with diverse populations, action research, and the development of an academic portfolio.

Prerequisite: Competency Area I and Step 2. No student can receive credit for both EDE 753 and EDC 732. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 755 - Advanced Methods of Teaching Music in the Elementary School (3)

Development of techniques for integrating music into the K-6 curriculum; teaching elements of music, recorder, keyboard; a variety of music education philosophies and methodologies including Kodaly and Orff; writing and producing assembly programs for and with students; extensive repertoire of songs, musical games, and comprehensive units for elementary school years.
Prerequisite: Preadmission to the M.A.T. program in music education; or permission of the Graduate Adviser in Music Education. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 756 - Teacher as Researcher (3)

Continued development and utilization of action research skills appropriate to a particular area of specialization in childhood, culminating in a written capstone project. Required state certification student teaching assessments supported through the course. This is a credit-bearing course that will use a Pass/No Pass grading basis.

Prerequisite: EDE 721, EDE 722 and six methods courses. Corequisite: EDE 783. No student can receive credit for both EDE 756 and EDC 756. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 757 - Ethics and Professionalism in Childhood Teaching (3)

Study of the childhood teaching profession, its multiple historical, philosophical, and social foundations. Analysis of teaching practices through the use of self-assessment as a form of evaluation and professional portfolio development. Examination of the purpose and meaning of teaching and the contributions made to the profession through analysis of their own teaching experiences.
Prerequisite: Competency Area II and Step 4. Corequisite: EDE 756. No student can receive credit for both EDE 757 and EDC 757. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 758 - Intensive Teaching Internship and Seminar I (3)

(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.

Prerequisite: Matriculated status. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDE 759 - Intensive Teaching Internship and Seminar II (3)
(For matriculated students in Childhood Education who are not certified to teach but who hold teaching positions.) Observation, evaluation, assessment, and structured support via interaction with peers and Lehman faculty around day-today, on-site classroom teaching practice.

Prerequisite: EDE 758. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 760 - Second-Language Learning and Teaching in Elementary School (3)

The psychological principles of second-language learning and their application to teaching in the elementary school, with emphasis on the language development of preadolescent school children.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 762 - Workshop in the Teaching of Foreign <br> Languages in the Elementary Schools I and II (3)

Consideration of the objectives, materials, and methods in the teaching of foreign languages to elementary school children through the study of existing literature. Discussion of problems relating to the integration of the foreign language
with the total school curriculum. (II.) Practice in the preparation of materials and the development of methods suitable to the participant's school situation

Prerequisite: Employment as a teacher and methods of elementary education. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 763 - Workshop in the Teaching of Foreign Languages in the Elementary Schools I and II (3)

Consideration of the objectives, materials, and methods in the teaching of foreign languages to elementary school children through the study of existing literature. Discussion of problems relating to the integration of the foreign language with the total school curriculum. (II.) Practice in the preparation of materials and the development of methods suitable to the participant's school situation
Prerequisite: Employment as a teacher and methods of elementary education. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 764 - Mainstreaming in the Elementary Classroom

 (3)Curriculum planning and management of programs for exceptional children in N-6 classroom settings. Analyzing student needs, designing goals, program planning, and testing, with emphasis on mainstreaming and implementation of individualized education programs in a self-contained classroom.
Prerequisite: One course in educational psychology and 6 credits in elementary education method courses. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDE 765 - Aesthetic Education in the Elementary School (3)

Development of perceptual awareness of works of art and events in the art world: art, music, dance/movement, drama, and nature-made environment (reacting to, appreciating, and evaluating). Exploration of approaches for incorporating aesthetic education in elementary school curricula.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 768 - Education Workshop for Teachers of Children of Puerto Rican Origin in the Elementary School (3)

A workshop to help elementary school teachers deal with the situations and problems arising in their actual school experiences. Emphasis will be on the preparation, demonstration, and discussion of instructional materials needed for developing communication skills and orientation concepts in newcomers of Puerto Rican origin within the existing organizational and curricular patterns of the elementary school.

Prerequisite: Employment as a teacher and a course in methods of teaching in elementary school. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 770-Quantitative Methods (3)

Descriptive and inferential statistics: elementary probability theory, psychological and educational variables, the nature and logic of quantitative observations, data reduction and graphic presentation, statistical computations, and tests of hypotheses and correlational analysis.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 772 - Educational Tests and Measurements for Elementary School (3)

Systematic introductory course for graduate students. The fundamentals of interpreting elementary school test scores. The writing of objective test items for elementary school, methods of evaluating tests for use in the elementary classroom, and up-to-date instruments for testing aptitude and achievement in elementary students.
Prerequisite: Course in educational psychology or human development. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## EDE 775 - Problems of Elementary Education in Metropolitan Areas (3)

Social structures of urban life and their impact on the problems and future forms of the urban elementary school. Critical examination from a variety of viewpoints of major issues arising from urbanization in curriculum, methods, pupil achievement, and organization of the elementary school.
Prerequisite: One course in educational foundations. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 776 - Special Studies in Elementary Education (3)

(May be repeated for up to 6 credits with permission of Graduate Adviser as the topic changes.) Investigation of specific developments, problems, or practices in the field of elementary education. Topics and credits will vary and be announced each semester.

Prerequisite: Permission of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 777 - Using the Computer in the Classroom (3)

Exploration of the uses of the computer within the elementary school curriculum, including computer-assisted and computermanaged instruction, word processing, file handling, simulation, and inference testing. Instruction-enhancing use of commercial and teacher-developed materials.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 780 - Comparative Education (3)

Comparative study of school organization, curricular practices, and contemporary educational problems in selected foreign countries. Special attention will be given to the study of issues that have cross-cultural dimensions

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 781 - Advanced Studies in Comparative and International Education (3)

Intensive and specialized studies in selected systems of education, using appropriate methodologies in comparative education. Review and evaluation of the work of bilateral and international technical assistance for educational development.

Prerequisite: ESC 780 or EDE 780 or instructor's permission. Cross-Listed as: LEH ESC 781/EDE 781. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 782 - Supervised Student Teaching in Bilingual

 Classrooms: Grades 1 to 6 (3)The student teaching experience will be conducted collaboratively with college, school, and community partners in providing opportunities for prospective teachers to continue to establish best professional practices developed in the Certification Sequence and successfully evaluate the outcomes of those practices. The clinical experience will take place in bilingual/multicultural settings that include students with disabilities and students of different childhood age/grade levels (grades 1 to 6), with particular emphasis on the bilingual classroom. Student teachers are required to spend five full days each week in their school placement.

Prerequisite: EDE 721, EDE 722, and 12 credits of methods courses. Corequisite: EDE 783. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 783 - Student Teaching Seminar (3)

Utilization of the classroom setting as laboratory; realistic examination of the multidimensional issues that reflect the complexities of teaching. Further development of the ability to problem solve, to consider flexible and varied interactions with children, and to reflect so that students develop as competent, qualified, and caring learners/teachers. Analysis and discussion of concerns, fears, views within a safe, supportive environment. Completion of a professional electronic portfolio.

Prerequisite: EDE 721, EDE 722, and 12 credits of methods courses. Corequisite: EDE 756; EDE 795, EDE 782 or EDE 784. Cross-Listed as: LEH EDC 783/EDE 783. Requirement

Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 784 - Supervised Student Teaching Internship:

 Grades 1-6 (3)Collaboration between college and school partners to provide opportunities for uncertified teachers in the classroom to continue to establish best professional practices developed in the Certification Sequence and successfully evaluate the outcomes of those practices in the teachers' current setting supervised by college faculty.
Prerequisite: EDE 721, EDE 722, and 12 credits of methods courses. Corequisite: EDE 783. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 788 - Fundamentals of Curriculum Development (3)

Introduction to the philosophy, psychology, and theory underlying a variety of approaches to the curriculum in the elementary school (N-6). Analysis of curricula in different subject areas, using a variety of models.
Prerequisite: EDE 701. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 789 - Workshops in Curriculum Design (1-3)

(May be re-elected for credit, with the Graduate Adviser's permission, when the topic changes.) Theoretical and practical approaches to design of curricula in early childhood and elementary education.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 790 - Workshops in Curriculum Materials Development. (1-3)

(May be re-elected for credit, with the Graduate Adviser's permission, when the topic changes.) Preparation and development of instructional materials for curricula in early childhood and elementary education.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 791 - Seminar in Problems of Elementary Education

 (3)Seminar on problems of curriculum design and organization in early childhood and elementary education, with emphasis on issues arising in actual teaching experience.

Prerequisite: Full-time teaching experience. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 792 - Developing In-Service Programs for Early Childhood and Elementary Education (3)

Planning, organizing, implementing, and evaluating training programs in schools, districts, and municipalities. Students will carry out field assignments.

Prerequisite: Teaching experience and chair's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 793-Curriculum Planning and Management for Elementary Education (3)

A course in planning and managing curriculum for entire schools or school districts. Analyzing student needs, defining goals, organizing sequences for instruction, and evaluating curriculum coordination and leadership.
Prerequisite: Teaching experience and chair's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 795 - Supervised Student Teaching: Grades 1 to 6 (3)

The student teaching experience will be conducted collaboratively with college, school, and community partners in providing opportunities for prospective teachers to continue to establish best professional practices developed in the Certification Sequence and successfully evaluate the outcomes of those practices. The clinical experience will take place in multicultural settings that include students with disabilities and students of different childhood age/grade levels (Grades 1 to 6). Student teachers are required to spend five full days each week in their school placement and two hours each week in a professional development workshop.

Prerequisite: EDE 721, EDE 722, and 12 credits of methods courses. Corequisite: EDE 783. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDE 796 - Advanced Student-Teaching Internship in Elementary School (2)

An advanced course in student teaching in the elementary school, with an opportunity for increased participation in teaching and other school activity. Applicants will be required to meet acceptable standards of health, character, and personality and to demonstrate a command of English, both written and oral, to meet the demands of the teacher's calling.

Prerequisite: A course in student teaching in the elementary school equivalent to the requirement in the Lehman College Four-Year Teacher Education Program; or, for students in the curriculum for Teachers of Speech Improvement, a course in clinical practice for speech correction. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 797 - Advanced Student-Teaching Internship in Elementary School (2)

An advanced course in student teaching in the elementary school, with an opportunity for increased participation in teaching and other school activity. Applicants will be required to meet acceptable standards of health, character, and personality and to demonstrate a command of English, both written and oral, to meet the demands of the teacher's calling.

Prerequisite: A course in student teaching in the elementary school equivalent to the requirement in the Lehman College Four-Year Teacher Education Program; or, for students in the curriculum for Teachers of Speech Improvement, a course in clinical practice for speech correction. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDE 798 - Advanced Student-Teaching Internship in Elementary School (2)

An advanced course in student teaching in the elementary school, with an opportunity for increased participation in teaching and other school activity. Applicants will be required to meet acceptable standards of health, character, and personality and to demonstrate a command of English, both written and oral, to meet the demands of the teacher's calling.

Prerequisite: A course in student teaching in the elementary school equivalent to the requirement in the Lehman College Four-Year Teacher Education Program; or, for students in the curriculum for Teachers of Speech Improvement, a course in clinical practice for speech correction. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG - Counselor Ed

EDG 700 - Professional Identity in Counseling (3)
History, philosophy, and professional roles of the school counselor, with emphasis on legal, ethical, and equity issues in urban schools and families. A 10-hour prepracticum in a K12 school is required.
Prerequisite: Matriculation in the program. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 701-Counseling Theories and Techniques (3)

Systemic and individual theories and techniques of counseling and collaboration with children, adolescents, families, educators, and administrators in K-12 settings. A 10-hour prepracticum in a K-12 school is required.

Prerequisite: Matriculation in the program. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 702 - Multicultural Counseling (3)

Examines theories of multicultural counseling in diverse urban school settings focusing on ethnic/racial identity development, world view, anti-oppression, and social justice models in counseling.
Prerequisite: EDG 700, EDG 701 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 703 - Human Development in Counseling (3)

Examination of child, adolescent, and family development theories in diverse urban school settings, including the application of lifespan developmental theory in counseling practice.
Prerequisite: EDG 700, EDG 701 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 704 - Career Counseling (3)

Examination of career development theory and technologybased career counseling practices in diverse urban school settings and the school counselor's role in life-long career and educational planning and development for children, adolescents, and families in collaboration with schools, community agencies, and government organizations. A 10hour pre-practicum experience in a K-12 school setting is required.
Prerequisite: EDG 700, EDG 701 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 705-Group Counseling (3)

Examination of group counseling theories and experiential understanding of group practice with children, adolescents, families, and school personnel in urban school and community settings. Major themes include group dynamics, group process, leadership styles, group stages, group counseling methods and direct experience. 10 hours of fieldwork is required. PREREQ: Matriculation in a graduate counselor education program and permission of program advisor.
Prerequisite: Matriculation in Grad Counselor Education program Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 706 - Assessment in Counseling (3)

Examination of assessment theory and practice in urban school counseling settings, including culturally competent assessment and diagnosis; types of academic and interpersonal assessment instruments; use of statistics; and application of assessment data to promote academic, career, and interpersonal success. A 10-hour pre-practicum experience in a K-12 school is required.

Prerequisite: Permission of program advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 707-Practicum in Counseling (3)

Application of counseling theories and techniques to practice in an urban K-12 school counseling field site under supervision. Counseling, consultation, advocacy, assessment, and leadership skills are monitored by faculty via student selfreport, journals, videotaped counseling sessions, and group supervision. Forty hours of direct counseling/consultation services and 60 hours of collateral services with students and
families are required at the site. This course may be repeated twice for specialized bilingual school counseling or family counseling practicum experience.

Prerequisite: 18 graduate school counseling credits, including EDG 705 and permission of the Program Coordinator. Bilingual School Counseling and Family Counseling Extension practicum students must have completed 9 extension credits and have permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 708-Counseling Research, Program Development, and Evaluation I (3)

Examination of research design, data collection procedures, and the implementation and evaluation of comprehensive developmental K-12 school counseling programs.

Prerequisite: EDG 706 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 709 - Leadership, Advocacy, Collaboration and Consultation in Schools (3)

Understanding of theories and models of leadership, advocacy, collaboration and consultation for change in urban school counseling contexts; design and evaluation of comprehensive school counseling programs; understanding of strategies and skills development to work with school-familycommunity partnerships to ensure equity and advocate for the use of community resources; consultation with teachers, staff, and community-based organizations to promote student academic, career, college, and social-emotional development. Fieldwork in a K-12 setting required.
Prerequisite: Matriculation in a graduate counselor education program and permission of program advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 710 - Counseling Research, Program Development, and Evaluation II (3)

Examination of K-12 school counseling research culminating with the development and implementation of an action research project in schools, including design of a research project related to a proposed or existing school counseling or educational program, collection and analysis of data, and a written research article about the project suitable for publication in a professional counseling journal or for presentation at a State or national counseling conference.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 731 - Sexuality Counseling (3)

An overview of sexuality counseling. Stresses the process of interaction between professionals and clients that allows clients to explore and understand their sexuality, feelings,
values, responsibilities, needs, and behaviors. Topics include: changing family structure, alternative lifestyles, changing sex roles, an increasing older population, drug and alcohol abuse, and sexually transmitted diseases, including AIDS.

Prerequisite: Permission of adviser. Cross-Listed as: LEH EDG 731/HEA 731. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 732 - Abuse, Violence, and Chemical Dependency Counseling (3)

This course examines current counseling theories, techniques, and research related to abuse, violence, chemical dependency, and crisis in urban schools and families. Prevention, intervention, referrals, and the role of the counselor are emphasized.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 733 - Developmental School Counseling (3)

Examination of theories and techniques for developmental school counseling, consultation, and leadership in elementary, middle, and high school settings to facilitate academic, career, and interpersonal success for all students, with emphasis on the school counselor's collaborative role with parents, guardians, teachers, school administrators, and clinical personnel to create, implement, and evaluate comprehensive developmental school counseling programs.

Prerequisite: EDG 703 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 734 - Multilingual School Counseling (3)

Examination of multilingual and multicultural approaches to school counseling and consultation in urban settings with linguistically and culturally diverse children, adolescents, families, and school personnel.

Prerequisite: EDG 702 and permission for a program advisor. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDG 735 - Family Counseling (3)

Examination of theories of family counseling and consultation with culturally diverse families in urban school and community contexts with emphasis on the changing nature of families, family assessment, legal issues, and preventive interventions.

Prerequisite: EDG 701, EDG 703 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDG 736 - Parenting within Diverse Family Structures (3)
Examination of theories and techniques of parenting using a culturally diverse family life cycle model, including how to involve parents, guardians, and other family members in the educational and emotional lives of children and youth through
parenting workshops, educational programs, and brief, shortterm family counseling interventions in schools and community agencies.

Prerequisite: EDG 701, EDG 703 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDG 737 - Couples Counseling: Theories and Techniques (3)

Examination of couples counseling and relationship assessment theories and techniques in diverse urban communities, emphasizing enhancement of couple relationships from various cultural perspectives and appropriate prevention and interventions for couples across the lifespan.

Prerequisite: EDG 701, EDG 703 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDG 738 - Brief Counseling of Children and Adolescents (3)

Examination of brief counseling methods and techniques for children and adolescents. Interviewing techniques and case conceptualization in terms of evidence-based practices will be emphasized. Strategies for professional counselors to document the effectiveness of counseling interventions will also be presented.

Prerequisite: EDG 702, EDG 705, EDG 706 Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 739 - College Access Counseling (3)

Development of college and postsecondary counseling competencies to close achievement, opportunity and attainment gaps, focusing on college readiness, access, admission, and postsecondary planning.

Prerequisite: Permission of program advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDG 743 - Internship in Counseling I (3)

First of two required supervised internships in urban school counseling and consultation. Counseling interns are required to provide 120 hours of direct counseling/consultation service with clients and 180 hours of indirect collateral service (including staff meetings and on-site supervision) at an approved internship site. Students also participate in weekly group supervision devoted to evaluation of counseling, consultation, advocacy, and leadership using self-report, journals, videotaped counseling sessions, and selected advanced counseling topics.
Prerequisite: 36 hours of credit in school counseling, including EDG 707 and permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDG 744 - Internship in Counseling II (3)

Second of two required supervised internships in urban school counseling and consultation. Counseling interns are required to provide 120 hours of direct counseling/consultation service with clients and 180 hours of indirect collateral service (including staff meetings and on-site supervision) at an approved internship site. Students also participate in weekly group supervision devoted to evaluation of advanced counseling, consultation, advocacy, and leadership using selfreport,
Prerequisite: EDG 743 and permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI - Educational Media

## EDI 703 - Multimedia Production for Educational Environments (3)

Plan, design, implement, and assess multimedia tutorials and projects to support problem-based learning and research across the curriculum.
Prerequisite: EDE 777 and permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDI 704 - Technology, Problem Solving, and Critical Thinking in Education (3)
Review and application of educational theories and research addressing the new technologies supportive of problem solving, critical, and higher-order thinking.
Prerequisite: EDE 777 and permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 705 - Distance Learning and Electronic

 Communications Applied to Educational Environments (3)Design and analysis of reformed curriculum incorporating the Internet, videoconferencing, electronic communication, and interactive distance-learning classrooms supportive of critical and higher-order thinking.

Prerequisite: EDE 777 and permission of the program coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDI 706 - LANS, Networks, and Infrastructure Design and Analysis in Educational Environments (3)
Investigation of design characteristics of local area networks (LANS), intranets, and the global Internet (WANS). Issues to be addressed include infrastructure design and management, security maintenance, ethical and legal questions, curriculum development, professional development of users, and the
obtaining and allocation of resources for continued support of existing and planned systems.
Prerequisite: EDI 705 and permission of the program coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 719 - Instructional Design (3)

Introduction to the principles and procedures for assessing learners and learner groups, articulating goals and objectives, planning and implementing instructional media, and evaluating results of this instruction.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 720 - The Mass Media in Education (3)

The nature of the media in society and its impact on education, viewed in light of communication theory, research findings, and curriculum objectives.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDI 721 - Educational Media Production I (3)
Production and application of still images using a variety of equipment (such as cameras, slide projectors, overhead and opaque projectors) and production and application of slide tape series; use of terms and concepts in producing and examining images.
Corequisite: EDI 719 or the coordinator's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDI 722 - Educational Media Production II (3)
Production and application of educational materials using moving images and sound (super 8 mm film/videotape); use of basic visual terms and concepts in producing and examining these productions.

Prerequisite: EDI 719 and EDI 721. Corequisite: EDI 723 or permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDI 723 - Instructional Resources for Teaching and Learning (3)
Locating, evaluating, selecting, and using resources appropriate to the solution of selected educational problems.

Prerequisite: Coordinator's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDI 724 - Practicum in the Application of Media to Educational Problems (3)

Designing and evaluating instructional materials in field settings (schools, hospitals, prisons, etc.).

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 790 - Videotape and Closed-Circuit Television Productions (3)

The uses of videotape and closed-circuit television in the curriculum; planning, presenting, and analyzing TV videotape productions for educational programming.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 791 - Documentary Film (3)

Survey of nonfiction film. Study of $16-\mathrm{mm}$ films analyzed in terms of intention, style, quality, and applicability to classroom situations. Students will review current film and television productions. Classroom film documentation of teaching techniques.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 792 - Simulation and Games (3)

An introduction to the theory, use, evaluation, and creation of simulation and game situations in school.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDI 793 - Intermedia Production Techniques (3)

Principles of film, animation, editing, macro photography, monaural and stereo recording, and multiscreen projection, and the integration of these media in classroom presentations.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL - Educational Leadership

EDL 701 - The Principal as a School Building Leader (3)
Examination of concepts, practices, and empirical research related to urban school leadership across the P-12 continuum. Emphasis on basic administrative theories of change, structure, decision making, motivation, communication, and culture as applied to urban school improvement and leadership. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 702 - Ethics in School Leadership (3)

Examination of the ethical issues that $\mathrm{P}-12$ principals and other school leaders commonly face in urban schools. Emphasis is on leadership strategies that embrace integrity, impartiality, honesty, respect, linguistic and cultural diversity, and a strong work ethic, as well as effecting change through ethical decision making.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 703 - Collaborative and Community-Based Leadership (3)

Emphasis on collaborative strategies school-building leaders can use to build consensus with teachers, school counselors and other educational staff, parents, and the community. Focus on the role of the school leader in creating programs that benefit both the school and the community. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 704 - Instructional and Curriculum Leadership (3)

Considers structural and professional coordination and supervision of instruction and curriculum. Topics include, but are not limited to developing an instructional vision; clinical supervision; learning theories; curriculum development and theories; instructional and assessment strategies; in-service program design and implementation; and summative and formative evaluations. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 705 - Technology, Planning, and Managing Resources (3)

Emphasis on technology planning and application to improve instruction, increase student achievement, and assist with administrative tasks such as planning and budgeting. Topics include, but are not limited to, interactive software for class scheduling, in-service programming, and enhancing instruction; database design and management; funding sources and strategies for acquiring technology and other educational resources, technology applications for students with special needs and English language learners. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Prerequisite: EDL 703 and EDL 704 and/or permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts.

## EDL 706 - Legal and Economic Issues and the Administration of Schools (3)

Provides an overview of the legal and economic issues that impact education on the Federal, State, and local levels. Topics include, but are not limited to, the duties and liabilities of school personnel; faculty and student rights; religion and public education; labor negotiations; fiscal planning and budgeting; facility management; and creating a healthy, safe, and secure school environment through effective building management. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 707 - Creating Effective and Supportive Learning Environments for All Students (3)

Explores the design and implementation of instructional programs targeting students with special needs, Englishlanguage learners, and at-risk students. Topics include, but are not limited to, metacognitive strategies; early assessment and intervention; IEP development; applications of behavior management techniques; differentiated instruction; alternative assessment and high-stakes testing; inclusive placements; and co-teaching models. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 708 - Research, Assessment, and Data-Driven Decision Making (3)

Identification, use, and interpretation of educational research to impact on school management, instruction, and student performance. Data collection methods for accountability and program evaluation. Action research methods emphasized. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 709 - Case Studies in School Building Leadership (3)

This capstone course will help students apply the various theories in leadership, decision-making, organizational structure, and motivation to solve problem-based examples related to school building leaders. Through case-study problems, students will also review principles and practices emphasized on the New York State Leadership Assessments.
Requirement Designation: Graduate Non-Liberal Arts.

## EDL 710 - The Leadership Experience I-Building Level (3)

One of two required supervised internships for School Building Leader certification. Interns are required to complete 200 hours of school-based leadership experiences at approved school sites. Includes seminars devoted to reflection on internship experiences through discussion, role playing, and journaling.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 711 - The Leadership Experience II-Building Level (3)

One of two required supervised internships for School Building Leader certification. Interns are required to complete 200 hours of school-based leadership experiences at approved school sites. Includes seminars devoted to reflection on internship experiences through discussion, role playing, and journaling.
Requirement Designation: Graduate Non-Liberal Arts.

## EDL 712 - Leading an Effective School District (3)

Examination of concepts, practices, and empirical research related to urban district leadership. Emphasis on basic administrative theories of change, supervision, organizational structure, decision making, motivation, communication, and culture as applied to urban district improvement and leadership. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.
Requirement Designation: Graduate Non-Liberal Arts.

## EDL 713 - Shared Decision Making and Ethics for the School District Leader (3)

The development and application of decisional strategies to address administrative issues such as district operations, resource allocation, curriculum, instruction, staffing, and district performance. Examination of the ethical dilemmas involved in decision-making at the district level and emphasis, through role playing and case study analyses, on decisionmaking strategies that embrace integrity, impartiality, honesty, respect, and linguistic and cultural diversity.

Prerequisite: School leadership experience and/or permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDL 714 - Educational Vision, Strategic Planning, and Systematic Evaluation (3)
Examination of the definitions and processes inherent in creating an educational vision, planning to implement the vision, and evaluating progress toward achieving the vision. Emphasis on the fundamentals of educational strategic planning, including mission, beliefs, objectives, policies, SWOT analyses, action plans, and benchmarking. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Prerequisite: EDL 712 and EDL 713 and/or permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 715 - Diversity and Educational Leadership (3)

Explores the role of the school district leader in the development, implementation, and supervision of special education, bilingual, and at-risk programs that are culturally and ethnically sensitive. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.
Prerequisite: EDL 712 and EDL 713 and/or permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 716 - Educational Governance, Policy, and Law (3)

Analysis of the ways in which political and legal powers and authority impact the structure and function of individual schools and districts. Examines the role of school district
leaders in setting policy. Topics include, but are not limited to, high-stakes testing and accountability issues; pressure groups; and local school policies. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 717 - Finance, Operations, and Human Resource Management (3)

Examines the role of the school district leader in long-range financial planning, facility development, and human resource management. Topics include, but are not limited to, financial, human, and general resource allocation; budgeting and accounting procedures and legal requirements; the recruitment, training, retention, assignment, evaluation, and mentoring of personnel; purchasing procedures; building and grounds management; and benefits analysis and cost controls. Students will participate in 6 hours of leadership experiences in the field over the course of the semester. PREREQ: EDL 714 and EDL 715 and/or permission of the Program Coordinator.

Requirement Designation: Graduate Non-Liberal Arts.

## EDL 718 - Creating Effective Partnerships: Parents, Community Members, School Boards, and Other Key Stakeholders (3)

Explores the role and responsibilities of the school district leader in relation to the community as a whole, including local institutions of higher education, social and health agencies, and teacher unions, as well as the politics involved in interacting with community partners. Topics include, but are not limited to, community analysis methods; techniques designed to improve community relations; marketing strategies; and public relations models. Students will participate in 6 hours of leadership experiences in the field over the course of the semester.
Prerequisite: EDL 716 and EDL 717 and/or permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 719 - Case Studies in School District Leadership (3)

This capstone course applies the principles of leadership, decision making, governance, and administration to address school district management. Principles and practices emphasized through a case-study approach on the New York State Leadership Assessments will be highlighted.
Prerequisite: Permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDL 720 - The Leadership Experience-District/Region Level (6)

This is a required supervised internship for all students pursuing the Advanced Certificate leading to School District Leader certification. Interns are required to complete 400 hours of district- or region-based leadership experiences at approved internship sites. Includes seminars devoted to reflection on internship experiences through discussion, role playing, and journaling.

Prerequisite: Satisfactory completion of 21 credits in educational leadership and permission of the Program Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 721 - The Leadership Experience-District Extension ( 3 (May be repeated for a maximum of 6 credits).)

This is a required supervised internship for all students pursuing the Advanced Educational Leadership/District Leader Extension Program, leading to School District Leader certification. Interns are required to complete 200 hours of district-based leadership experiences at approved internship sites. Includes seminars devoted to reflection on internship experiences through discussion, role playing, and journaling.
Requirement Designation: Graduate Non-Liberal Arts.

## EDL 801 - Holistic Leadership (4)

Foundational course where students study organizational psychology and the many aspects of leadership theory and practice, while exploring, identifying and developing their own leadership commitment, performance and transformational practices. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 802 - Ethical Leadership (4)

Examination of complex issues confronting organizational leaders as they interact with various stakeholders. Managing conflicts of interests; implementing codes of conduct; and establishing roles of the leader in setting, maintaining and modeling ethical standards for an organization. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 803 - Communication and Team Work (3)

Strategies for communicating effectively as leaders of a group (small or large) and creating successful teams; identifying communication barriers; feedback mechanisms; strategic listening techniques; leading diverse teams; and effective team models. (Fieldwork hours required.)

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## EDL 804 - Leading for Strategic Change (4)

Examination of strategic change models, processes and methods. Topics include: aligning change initiatives with vision and mission; SWOT analyses; motivating teams effectively; and creating a culture conducive to change. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 805 - Program Development and Evaluation (4)

Emphasis on research designs (theoretical and applied); needs assessment; data collection and analyses techniques; program development and review; grant proposals/funding; research reports; and continuous improvement through feedback loops. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 806 - Managing Financial Resources (4)

Study of fundamental organizational fiscal management and exploration of universal financial challenges faced by nonprofit organizations. Topics include fundraising; phases of successful capital campaigns; developing and managing board relations; seeking grant funding opportunities; and creating feasible and sustainable business plans. Students will learn the direct relationship between a robust financial management system and the sustainability of their organizations. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 807 - Leveraging Human Capital (4)

Study of the challenges and opportunities of leveraging human capital. Examination of the impact diversity has on an organization and its members. Focus on strategies for conflict resolution; supporting professional/career development; legal and regulatory procedures associated with supervising staff; maximizing volunteer opportunities; and long-term strategic growth and retention. (Fieldwork hours required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 808 - Leadership Seminar I: Needs Assessment (1)

In consultation with a faculty advisor, students work independently on sections of their approved organizational leadership action research project.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDL 809 - Leadership Seminar II: Literature/Research (1)

In consultation with a faculty advisor, students work independently on sections of their approved organizational leadership action research project.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDL 810 - Leadership Seminar III: Implementation Plan (1)

In consultation with a faculty advisor, students work independently on sections of their approved organizational leadership action research project.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR - Literacy Studies

EDR 529 - Language, Literacy, and Educational
Technology (3)
Using information technology to support the teaching of literacy to students of diverse language backgrounds and abilities through the content areas. Social, legal, and ethical issues affecting the instructional use of technology. Curriculum development, current standards, inclusion of students with disabilities, and assessment.

Cross-Listed as: LEH EDR 529/ESC 529. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 605 - Professional Writing for Educators (3)

Critical and comparative analysis of texts; application to academic writing and editing, including research reports, grant proposals, and field studies.

Prerequisite: Permission of the coordinator/ instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 701 - Language and Literacy Development of Infants, Toddlers, and Young Children (3)

Examination of theories of and research on language and literacy development among infants, toddlers, and young children of varying developmental abilities and from diverse linguistic and cultural backgrounds.
Prerequisite: Permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 702 - Language and Literacy Acquisition and Development of Children (3)

Examination of theories of and research on language and literacy development among students of varying developmental abilities and from diverse linguistic and cultural backgrounds. 15 fieldwork hours required.

Prerequisite: Permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 703 - Literacy Acquisition and Development of PreAdolescents and Adolescents (3)

Examination of theories of and research on language and literacy development among students of varying developmental abilities and from diverse linguistic and cultural backgrounds. ( 15 fieldwork hours required.)

Prerequisite: Permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 705 - Second Language Literacy (3)

An examination of research on literacy development in a second or foreign language and its pedagogical implications.
Prerequisite: EDR 701 and permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 711 - Instructional Approaches for Language and Literacy Development in Early Childhood Education (3)
Instructional approaches appropriate for language and literacy development in early childhood education based upon current research. Examination, selection, design, and organization of linguistically and culturally relevant instructional practices, strategies, and materials for literacy development of infants, toddlers, and young children of varying developmental abilities.

Prerequisite: EDR 701 and permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 712 - Instructional Approaches for Language and Literacy Development in Childhood Education (3)

Instructional approaches appropriate for language and literacy development in childhood education based upon current research. Examination, selection, design, and organization of culturally and linguistically relevant instructional practices, strategies, and materials for literacy development of children with varying developmental abilities during childhood education.

Prerequisite: EDR 702 and permission of the Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 713 - Instructional Approaches Lang\&Literacy Dev for Diverse Learners in Mid Childhood\&Adolescent Edu (3)

Instructional approaches appropriate for language and literacy development in middle childhood and adolescent education based upon current research. Examination, selection, design, and organization of linguistically and culturally relevant instructional practices, strategies, and materials for literacy development of pre-adolescents and adolescents with varying developmental abilities. Focus on teaching literacy in subject
areas to meet the Common Core State Standards for English language arts and literacy.
Prerequisite: EDR 703 or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 715 - Development and Evaluation of Reading Materials (3)

Selection and/or design and evaluation of reading materials for mono- and bilingual settings.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 716 - Literacy Development in Nontraditional Settings (3)

Theoretical and empirical foundations for designing and implementing literacy programs in nontraditional settings. Examines and analyzes theories and practices of language, learning, knowledge, and ideology. Assessment and observations under supervision are made of operating literacy programs.

Prerequisite: EDR 706 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 721 - Assessing and Evaluating Language and Literacy Development in Early Childhood Education (3)

Assessing, evaluating, and facilitating language and literacy development among young children of varying developmental abilities and from diverse linguistic and cultural backgrounds. Supervised use of informal, alternative, portfolio, and/or formal evaluation strategies. Case studies done under supervision.
Prerequisite: EDR 701 and EDR 711, or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 722 - Assessing and Evaluating Language and
Literacy Development in Childhood Education (3)
Assessing, evaluating, and facilitating language and literacy development among students of varying developmental abilities and from diverse linguistic and cultural backgrounds. Supervised use of informal, alternative, portfolio, and/or formal evaluation strategies. Case study done under supervision. (15 fieldwork hours required.)
Prerequisite: EDR 702 and EDR 712, or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 723 - Assessing and Evaluating Language and Literacy Development in Middle Childhood and Adolescent Educat (3)
Assessing, evaluating, and facilitating language and literacy development among students of varying developmental
abilities and from diverse linguistic and cultural backgrounds. Supervised use of informal, alternative, portfolio, and/or formal evaluation strategies. Case study done under supervision. ( 15 fieldwork hours required.)

Prerequisite: EDR 703 and EDR 713, or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 726 - Curriculum Development for Literacy Programs in Nontraditional Settings (3)

Curriculum Development for Literacy Programs in Nontraditional Settings.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 731 - Practicum in Fostering Language and Literacy Development in Early Childhood and Childhood Education (6)
Assessment and evaluation of literacy development in early childhood and childhood education. Planning and implementing programs for children of varying developmental abilities and from diverse linguistic and cultural backgrounds ( 90 practicum hours required). Case studies done under supervision.
Prerequisite: EDR 722 (with a grade of B or better) and/or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDR 733 - Practicum in Fostering Language and Literacy Development in Middle Childhood and Adolescent Education (6)

Assessment and evaluation of literacy development in middle childhood and adolescent education. Planning and implementing programs for students of varying developmental abilities and from diverse linguistic and cultural backgrounds. ( 90 practicum hours required). Case studies under supervision.

Prerequisite: EDR 723 (grade of B or better) and/or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 736 - Practicum in Literacy Development in Nontraditional Settings (3)

Development and evaluation of literacy programs in nontraditional settings. Implementation under supervision.
Prerequisite: EDR 716 and EDR 726 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 751 - Literature-Based Literacy Programs in Early Childhood Education (3)

Examination of research on literature-based literacy programs in early childhood education. Emphasis on programs that facilitate literacy development among children of varying
developmental abilities and from diverse linguistic and cultural backgrounds.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDR 752 - Teaching Comp Strategies Lit thru Children's Lit for the Diverse Learner Early Chldhd\&ChIdhd Edu (3)

Emphasis on comprehensive strategies in literacy, using different genres of children's literature, that facilitate literacy development among students of varying developmental abilities and from diverse linguistic and cultural backgrounds. Focus on critical thinking skills, open-ended discussion and analysis of the range of reading and text complexities of fiction and non- fiction children $\dot{\zeta}^{s}$ s literature, aligned with the Common Core State Standards.
Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDR 753 - Teaching Com Strategies Literacy thru Young Adult's Lit Diverse Learners Mid Childhd\&Adolescent Edu (3)

Emphasis on comprehensive strategies in literacy, using different genres of young adolescents' literature, to facilitate literacy development among students of varying developmental abilities and from diverse linguistic and cultural backgrounds. Focus on skills, strategies, and text complexities aligned with the Common Core State Standards.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 756 - Literature-based Literacy Programs in Nontraditional Settings (3)

Examination of research on literature-based literacy programs for adults within family, community, and work settings. Emphasis on programs that facilitate literacy development among adults of varying developmental ability and from diverse linguistic and cultural backgrounds.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 762 - Investigation in Reading I (3)

In-depth examination of problems and issues related to reading and learning to read. Development of positions and issues with opportunities for oral and written defense.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 763 - Investigation in Reading II (3)

Design and execution of action research related to an issue in reading.

Prerequisite: EDR 762, advanced standing (18 credits), and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 765 - Literacy in the Content Areas (3)

This course offers educators an understanding of language and literacy processes when reading complex texts across disciplines. Focus on ways that reading, writing, speaking and listening are developed and applied in different content areas; and on instructional methods for supporting students' literacy development across content areas informed by theory.

Prerequisite: Permission of coordinator. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

EDR 767 - Project Seminar: Research on Literacy I and II (3)

Formulation of a significant project related to literacy development of students with different learning difficulties or disabilities in school, home, or community settings. Definition, design, methods, and implementation of study.
Prerequisite: 18 credits in program (must complete EDR 702 or EDR 703; EDR 712 or EDR 713; EDR 722 or EDR 723; EDR 765; and 6 additional credits) and permission of the coordinator. ${ }^{*}$ Students in the dual certification program must complete: EDR 702, EDR 712, EDR 722, EDS 701, EDS 709, EDS 741, and EDS 743. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 768 - Project Seminar: Research on Literacy I and II (3)

Formulation of a significant project related to literacy development of students with different learning difficulties or disabilities in school, home, or community settings. Definition, design, methods, and implementation of study.

Prerequisite: 18 credits in program (must complete EDR 702 or EDR 703; EDR 712 or EDR 713; EDR 722 or EDR 723; EDR 765; and 6 additional credits) and permission of the coordinator. ${ }^{*}$ Students in the dual certification program must complete: EDR 702, EDR 712, EDR 722, EDS 701, EDS 709, EDS 741, and EDS 743. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDR 770 - Independent Study in Reading (1-3)

(May be re-elected for up to 6 credits.) Individual study under supervision.

Prerequisite: Permission of coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 775 - Literacy Theories and Programs: Perspectives for Administrators (3)

Survey course of literacy theory, methods, and programs for school administrators.

Prerequisite: Permission of coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 780 - Special Topics in Reading (3)

(May be re-elected for up to 6 credits).
Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDR 785 - Honors Seminar: Issues in Literacy (3)

Intensive study of major contributions in literacy theory and practice.
Prerequisite: 18 graduate credits in reading or permission of the coordinator. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## EDS - Special Education

EDS 700 - Biomedical Aspects of Handicapping Conditions (3)
Consideration of the various medical problems that may be associated with moderate and severe handicapping conditions.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
EDS 701 - Understanding Individuals with Disabilities (3)
This introductory course studies mild, moderate, and severe disability conditions that affect individuals across the lifespan. Included are: historical foundations, key legislation governing education and habilitation of individuals with disabilities, etiology and comorbidity, assistive technologies, school-based programming, parent advocacy and collaborative work with families, impact of cultural and linguistic diversity on identification and classification, and transition to independent living and provision of services across the lifespan. (15 fieldwork hours required.)
Prerequisite: Permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 702 - The Young Child with Special Needs (3)

Nature and needs of culturally and linguistically diverse young children (birth to 8 years) with a wide range of developmental delays and disability conditions. Pertinent legislation, intervention with families, developing Individualized Family Service Plans, and issues of advocacy will be studied within the context of the continuum of service delivery (home-based, center-based, and school-based interventions). (15 fieldwork hours required.)
Prerequisite: EDS 701 or permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 703 - Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Young Chi (3)

This supervised practicum focuses on the use of formal and informal behavior assessment practices with culturally and linguistically diverse young children with special needs in inclusive classrooms, the development of appropriate I.F.S.P. and I.E.P. goals in relation to behavioral assessment, the application of behavioral principles of classroom management to inclusive classrooms, and the specific steps and data collection procedures needed to implement a behavior change process with young children. (45 hours Supervised Practicum Teaching: Birth-2 years and/or children 3-5 and/or children 68 required.)
Prerequisite: EDS 701 and EDS 702 Corequisite: EDS 743 and permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 704 - Curriculum and Instructional Practices for Culturally and Linguistically Diverse Young Children with (3)
Curriculum and instructional practices appropriate for young children with special needs, including: curriculum standards, designing learning environments, developing effective strategies for teaching readiness and content area skills, developing social skill programs, collaborative teaching techniques, and using informal checklists in the development of appropriate IFSP./IEP goals and objectives. Emphasis will be placed on the impact of cultural and linguistic diversity on program planning and skill acquisition. Use of technology for instruction and monitoring student progress will be incorporated throughout the course. ( 15 hours practicum teaching required.).
Prerequisite: EDS 703. Corequisite: EDS 705. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 705 - Practicum in Curriculum and Instruction for

 Culturally and Linguistically Diverse Young Children wit (3)Focusing on the selection, adaptation, design, modification, and evaluation of curriculum and instruction for culturally and linguistically diverse young children with special needs. The development of appropriate IFSP and IEP goals, instructional objectives, and lesson plans in relation to the child's levels of functioning and cultural and linguistic background. Also addressing the selection of instructional materials and technologies; individualization and group service delivery; collaborative teaching; training of parents as reinforcers of acquired skills; adaptive and social skill acquisition; and the evaluation of students and programs. Course requires submission of a videotaped lesson for evaluation. (45 hours

Supervised Practicum Teaching: Birth-2 years and/or children 3-5 and/or children 6-8 required.)
Prerequisite: EDS 703 Corequisite: EDS 704. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDS 706 - Practicum in Assessment for Culturally and Linguistically Diverse Young Children with Special Needs (3)

Selection, adaptation, design, and modification of a test battery for culturally and linguistically diverse young children with special needs. The development of appropriate IFSP and IEP goals, instructional objectives, and lesson plans in relation to the child's levels of functioning will be emphasized. (45 hours Supervised Practicum Teaching: Birth-2 years and/or children 3-5 and/or children 6-8 required.)
Prerequisite: EDS 705 Corequisite: EDS 741. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 707 - The Childhood Student with Disabilities (3)

Nature and needs of culturally and linguistically diverse childhood students ( 6 to 12 years of age) with a wide range of developmental delays and disability conditions. Pertinent legislation, intervention with families, developing Individualized Education Programs and issues of advocacy will be studied within the context of the continuum of service delivery (inclusive, collaborative, and specialized settings). (15 fieldwork hours required.)
Prerequisite: EDS 701 or permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 708 - Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Childhood Students with Disabilities (3)

Focusing on the use of formal and informal behavior assessment practices with culturally and linguistically diverse childhood students with disabilities in inclusive classrooms; the development of appropriate I.E.P. goals in relation to behavioral assessment; the application of behavioral principles of classroom management to inclusive classrooms; and specific steps and data collection procedures to implement a behavior change process with childhood students with disabilities. ( 45 hours Supervised Practicum Teaching required)
Prerequisite: EDS 707. Corequisite: EDS 743.. Requirement Designation: Graduate Non-Liberal Arts.

EDS 709 - Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childhood Students (3)

Curriculum and instructional practices for use with childhood students with disabilities, including: curriculum standards;
designing appropriate learning programs and environments; developing strategies for teaching content area skills; developing social skills programs; collaborative teaching techniques; and the use of informal checklists in the development of I.E.P. goals and objectives. Emphasis will be placed on the impact of cultural and linguistic diversity on program planning and skill acquisition. Use of technology for instruction and for monitoring student progress will be incorporated throughout the course. (15 practicum teaching hours required.)
Prerequisite: EDS 708 Corequisite: EDS 710. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 710 - Practicum in Curriculum and Instructional Practices for Culturally and Linguistically Diverse Childh (3)

Selection, adaptation, design, modification, and evaluation of curriculum and instruction for culturally and linguistically diverse childhood students with disabilities in inclusive settings. The development of I.E.P. goals, instructional objectives, and lesson plans in relation to the child's level of functioning and cultural and linguistic background; selection of appropriate instructional materials and technologies; whole class, small group, and individualized teaching; collaborative teaching; parent training; adaptive and social skills acquisition; and the evaluation of students and programs will be addressed. Course requires submission of a videotaped lesson for evaluation. ( 45 hours Supervised Practicum Teaching: Grades 3-4 and 4-5 required.)
Prerequisite: EDS 708 Corequisite: EDS 709. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDS 711 - Practicum in Assessment of Culturally and Linguistically Diverse Childhood Students with Disabilities (3)
Selection, adaptation, design, and modification of a test battery for culturally and linguistically diverse childhood students with disabilities. Students will assess children; write evaluation reports; discuss implications of findings; and make appropriate educational recommendations on the basis of test data, observational data, and ecological data. The development of appropriate I.E.P. goals, instructional objectives, and lesson plans in relation to the child's levels of functioning will be emphasized in the course. ( 45 hours Supervised Practicum Teaching: Grades 3-4 and Grades 5-6 required.)
Prerequisite: EDS 710 Corequisite: EDS 741. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 712 - The Adolescent with Disabilities (3)

Nature and needs of culturally and linguistically diverse individuals with a wide range and degree of disability conditions, exploring the development lifespan, with a focus on adolescence. Pertinent legislation, intervention with families, developing IEP's and ITP's, postsecondary training opportunities, and issues of advocacy will be studied in the context of the continuum of service delivery across inclusive, collaborative, and specialized settings. ( 15 fieldwork hours required.)
Prerequisite: permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 713 - Practicum in Behavioral Assessment and Management of Culturally and Linguistically Diverse Adolescents with Disabilities in Inclusive Settings (3)

Use of formal and informal behavior assessment practices with culturally and linguistically diverse adolescents with disabilities in inclusive classrooms; the development of appropriate IEP goals in relation to behavioral assessment; the application of behavioral principles of classroom management to inclusive classrooms; the individualized application of selfmanagement techniques and behavior contracts for adolescents, where appropriate; and the specific steps and data collection procedures needed to implement a behavior change process with adolescents with disabilities. ( 45 hours Supervised Practicum Teaching: Grades 9-10 and Grades 1112.)

Prerequisite: EDS 712 Corequisite: EDS 743. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 714 - Curr\&Instructional Pract Culturally\&Linguistically Diverse Adolescents w/Disabilities Inclusive Set (3)

Curriculum and instructional practices for use with adolescent students with disabilities, including: curriculum standards, designing appropriate learning programs and environments, developing effective strategies for teaching content area skills, developing social skills programs, collaborative teaching techniques, and use of informal checklists in the development of appropriate IEP goals and objectives. Emphasis will be placed on collaboration in the use of research-validated methods of effective instruction for culturally and linguistically diverse adolescents with disabilities across the curriculum. Use of technology for instruction and for collaboratively monitoring student progress will be incorporated throughout the course. ( 15 hours practicum teaching hours at the developmental level of study required.).

Prerequisite: EDS 712 and permission of the adviser. Corequisite: EDS 716. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 715 - Research in Special Education (3)

This course is an introduction to research and will enable students to read, critique, and review professional research. Students will learn about research design, descriptive statistics, quantitative and qualitative research methods, and the use of technology in research.
Prerequisite: EDS 712, EDS 743, EDS 741, EDS 714, EDS 716, and permission of the adviser. ( 15 fieldwork hours required.) Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 716 - Practicum in Curriculum\&Instruction for Culturally\&Linguistically Diverse Adolescents w/disabilities (3)

Selection, adaptation, design, modification, and evaluation of curriculum and instruction for culturally and linguistically diverse adolescents with disabilities in inclusive settings. The development of appropriate IEP goals, instructional objectives, and lesson plans in relation to the adolescent's level of functioning and cultural and linguistic background; selection of appropriate instructional materials and technologies; whole class, small group, and individualized teaching; collaborative teaching; adaptive and social skill acquisition; and the evaluation of adolescents and programs will be addressed. ( 30 hours Supervised Practicum Teaching: Grades 7-9 and Grades 10-12.)

Prerequisite: EDS 712 and permission of the adviser. Corequisite: EDS 714. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 717 - Practicum in Assessment of Culturally and Linguistically Diverse Adolescents with Disabilities in In (3)

Selection, adaptation, design, and modification of a test battery for culturally and linguistically diverse adolescents with disabilities. The development of appropriate I.E.P. goals, instructional objectives, and lesson plans in relation to the adolescent's levels of functioning will also be addressed. (45 hours Supervised Practicum Teaching: Grades 9-10 and Grades 11-12.)

Prerequisite: EDS 716 Corequisite: EDS 741. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 718 - Culminating Master's Project (3)

A case study of a culturally and linguistically diverse learner with mild to moderate learning and behavior problems in an inclusive classroom setting from the social, educational, and psychological perspectives. Master's candidates, using print and electronic sources, will be required to review pertinent literature, research methodology, and teaching techniques in order to design and implement a specialized instructional program under supervision and to evaluate outcomes.

Students will explore disseminating their case-study findings via journals, electronic sources, conferences, etc. A videotaped lesson of this specialized instructional program integrated within an inclusive classroom must be submitted for evaluation to satisfy one of the requirements for this course. ( 45 hours Supervised Practicum Teaching at appropriate developmental level required.)

Prerequisite: EDS 706 or EDS 711 or EDS 717 Corequisite: EDS 715. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDS 719 - Student Teaching of Diverse Learners with Disabilities in Inclusive and Specialized Settings (3)
Supervised practicum in the teaching of culturally and linguistically diverse young children, childhood students, or adolescents with disabilities in collaborative and/or specialized educational settings. (90 Hours Supervised Practicum Teaching at the developmental level of study required.)
Prerequisite: EDS 712, EDS 714, EDS 716, EDS 741, EDS 743, EDS 715, and permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 720 - Student Teaching Seminar (3)

Seminar supporting the analysis, discussion, and reflection on the student teaching of culturally and linguistically diverse young children, childhood students, or adolescents with disabilities in inclusive and/or specialized educational settings. Required state certification student teaching assessments supported through the seminar. This is a creditbearing course that will use a Pass/No Pass grading basis

Corequisite: EDS 719. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 722 - Teaching Students with Severe Disabilities (3)

Teaching diverse learners with severe disabilities in specialized settings across the lifespan (day treatment centers, residential schools/care facilities, and hospitals) and includes the nature and needs of individuals with severe cognitive, behavioral, and/or physical disabilities, etiologies, comorbidity with other disorders, self-care, and adaptive skills curricula, medical and physical management issues, and community-based transition programming.
Prerequisite: Completion of requirements for M.S.Ed. in Special Education in either Early Childhood, Childhood, or Adolescence or permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 724 - Practicum in Teaching Diverse Learners with Severe Disabilities in Specialized Settings (3)

Supervised practicum in the teaching of diverse learners with severe disabilities in specialized settings. Focus on teaching daily life skills to individuals with severe cognitive, behavioral, and physical disabilities in specialized settings, including providing individualized instruction in day treatment centers, residential schools/care facilities, and hospitals. ( 45 hours Supervised Practicum Teaching at the developmental level of study required.)

Prerequisite: EDS 722 and EDS 723. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 725 - Nature and Needs of Culturally and Linguistically Diverse Gifted and Talented K-12 Students in Inclu (3)

An in-depth study of the nature and needs of gifted and talented culturally and linguistically diverse children and adolescents in inclusive and gifted classrooms. History, models, and theories of gifted education, characteristics of the gifted and talented, identification and prevalence, comorbidity with disabilities, factors that enhance or inhibit gifted development, and national and State standards. 10 hours of observation of inclusive and gifted classes and/or agency programs at the developmental level corresponding to the teaching certificate held.

Prerequisite: New York State Teaching Certificate or Reciprocal State Teaching Certificate. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDS 726 - Assessment of Culturally and Linguistically Diverse Gifted and Talented K-12 Students in Inclusive a (3)

Formal and informal assessment of culturally and linguistically diverse gifted and talented students in inclusive and gifted classes. Tools and methods for identifying and assessing gifted and talented students. 15 hours of fieldwork in assessment of gifted learners.
Prerequisite: EDS 725 and New York State Teaching Certificate or Reciprocal State Teaching Certificate. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 727 - Best Practices for Teaching Culturally and Linguistically Diverse Gifted and Talented (3)

Established best practices in the instruction of culturally and linguistically diverse gifted and talented K-12 students in inclusive and gifted classes including models of enrichment, acceleration, differentiated instruction, and technology applications. Modify and adapt curricula to challenge and assist gifted students in learning to their highest levels of
achievement within the framework of national and state standards. 15 hours of fieldwork in direct instruction of gifted and talented students at the developmental level corresponding to the teaching certificate held.

Prerequisite: EDS 726 and New York State Teaching Certificate or Reciprocal State Teaching Certificate. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 728 - Culturally and Linguistically Diverse Gifted and Talented K-12 Students in the Home (3)
Collaboration with school staff, families, and the community to provide appropriate instruction and leisure activities for culturally and linguistically diverse gifted and talented students. 10 hours of fieldwork in consultation and collaboration with educators, families and community agencies.
Prerequisite: EDS 727 and New York State Teaching Certificate or Reciprocal State Teaching Certificate. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 730 - Study of Early Special Education (3)

Nature and needs of the handicapped child aged 0 to 5 years with physical, sensorial, mental, and emotional handicapping conditions with a wide range and degree of difficulties.

Prerequisite: EDS 700 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 740 - Nature and Needs of the Handicapped (3)
Survey of the social and educational problems of all types of children with handicapping conditions, including sensory impairment. Content will include children's cognitive, social, and emotional problems, and the medical and psychological bases for appropriate education and care.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 741 - Psycho-educational Evaluation of Children with Learning Problems (3)
Theoretical bases of testing and techniques underlying psycho-educational evaluation of children with learning and behavior problems. Issues of standardized, informal, observational, computer-based, curriculum, and portfolio assessment will be addressed. Special attention will be placed on the impact of culture, language, and gender on testing. In a practicum setting, students will administer tests and score, interpret, and share results with parents, teachers, and other professionals. Issues of advocacy and self-advocacy will be addressed. ( 15 hours practicum at the developmental level of study required.)

Prerequisite: EDS 712 and permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 742 - Advanced Psycho-educational Assessment (3)

Analysis of major issues involved in the educational assessment of culturally and linguistically diverse populations, particularly in urban settings. Course content will emphasize curriculum-based assessment, design of nonstandardized assessment instruments, and the review of pertinent research findings.

Prerequisite: EDS 741 and permission of the program coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 743 - Behavioral Assessment, Management, and

 Change (3)The study of theories and techniques for managing the behavior of students with disabilities and for promoting development of positive social interaction skills. Specific applications of a variety of techniques for behavior management across home, school, and community settings with an emphasis on collaboration.
Prerequisite: EDS 712 and permission of the adviser. (15 fieldwork hours required.) Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 744 - Visual Arts for Children with Learning Problems (3)

Workshop course using art, media, and material; readings; and discussions related to the artistic development of the child with learning problems. Art activities will be derived from the following developmental areas: organizing (preplanning, sequencing, and ordering); body awareness; form and spatial awareness. All workshop activities incorporate visual, kinesthetic, haptic, and audio components to achieve intersensory growth and internalization of the learning experience.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 746 - Diagnostic Study and Habilitation of Infants and Toddlers with Special Needs (3)

Theoretical bases and techniques underlying diagnostic evaluation of singly- and multiply-impaired infants and of toddlers with multiple impairments from birth to three years of age. Diagnostic- prescriptive psycho-educational principles for fostering positive development. The objective of the course is to enable the student to determine the developmental requirements of infants and toddlers with physical, psychological, neurological, and learning impairments and to discover strategies for the infants' habilitation.

Prerequisite: EDS 730 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 747 - Diagnostic Study and Special Education of Older Preschool Children with Special Needs (3)
Theoretical bases and techniques underlying diagnostic evaluation of preschoolers with single and multipleimpairments from 3 to 6 years of age. Diagnostic-prescriptive psycho-educational principles for fostering positive development. The objective of the course is to enable the student to determine the developmental requirements of older preschool children with physical, psychological, neurological, and learning impairments and to discover strategies for their special education and habilitation.
Prerequisite: 18 credits in special education and *EDS 746, or approval of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 748 - The Adolescent with Developmental Learning Problems (3)

The effects of unremediated learning problems on the adolescent's attempts to master curriculum. Compensatory adaptations; secondary emotional problems. Diagnosticprescriptive program for remediation of cognitive and affective disturbances.

Prerequisite: EDS 760 and EDS 741; or permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 749 - Movement for Children with Learning Problems (3)
Integration of cognitive and affective abilities of the child with developmental learning problems through psychomotor/dance training. Designed to provide the student with competency to use psychomotor methods to permit the child access to improved learning of perceptual, linguistic, and academic skills.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 750 - Study of the Mentally Retarded and the Multiple-Handicapped Individual (3)

Study of current research, efficacy of past and present practices, knowledge of specialized terminology and theories, related services, and disciplines enabling teachers to become full participants in transdisciplinary terms. Site visits are planned to a variety of placements.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 751 - Curriculum and Methodology for Retarded and Multiple-Handicapped Children (3)

Synthesizing assessment information to develop an individualized educational plan for individuals who are retarded and/or have multiple handicaps. Knowledge of various curricular missions, strategies and methodologies, techniques, and materials. Understanding use and care of prostheses and other equipment to facilitate learning. Evaluating instructional objectives, methodology, and childmanagement procedures.

Prerequisite: EDS 750. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 752 - Development of Functional Literacy Skills in Individuals with Mental Retardation (3)
Identification, analysis, and remediation of literacy disorders of children who are mildly retarded. Emphasis on communication skills of reading and writing, although those of listening and speaking will be included. For individuals who are moderately retarded, literacy skills contained within activities of daily living will be stressed.
Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 753 - Practicum- Teaching Individuals with

 Retardation (3)A guided experience of teaching individuals with retardation in a variety of settings.

Prerequisite: Permission of program coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 754 - Individuals with Handicaps: Vocational Environments (3)

Developing awareness in special educators of the importance of meeting the total life career development needs of most individuals who are handicapped. The various vocational environments and agencies that accommodate individuals with handicaps are explored. The relevance of personal and social functioning is emphasized in relation to job success. The need to adopt the principle of normalization in vocational services is stressed, along with understanding

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 755 - The Special Child in the Home, School, and Community: Strategies for Adaptation (3)

Emphasizes the socio-ecological approach to educating the child with handicaps. This approach views behavior as a function of the relationship between the child and the environment. The course is designed to provide educators and
parents with strategies to enhance the home, school, and community networks.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 756 - Specialized Techniques for Teaching the Person
with Emotional Handicaps (3)
Investigation and field-based application of specialized behavioral techniques for teaching the emotionally handicapped learner. Behavioral techniques, humanistic approaches, and interfacing with other professionals will be explored.

Prerequisite: EDS 770, EDS 771, and EDS 743. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 757 - Transdisciplinary Approaches and the Person with Handicaps (3)

Investigation and conceptualization of the roles and responsibilities of the members of the transdisciplinary teams as they relate to service delivery for individuals with handicaps in a variety of settings, including residential, daytreatment, hospital, and others. Site visits to a variety of placements will be required.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 758 - Practicum- Teaching the Individual with Multiple Handicaps (3)

A guided experience of teaching children and adults with handicaps in a variety of settings.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
EDS 759 - Curriculum, Instruction, and Management of Older Preschool Children with Special Needs- A Practicum (3)

A guided experience of teaching preschoolers with handicaps in a variety of settings.
Prerequisite: EDS 747 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDS 760 - Study of the Person with Learning Disabilities (3)

Study of the theory of specific learning disability.
Examination of psychological, neurological, and linguistic theories of language and learning. Emphasis on the behavioral characteristics of individuals with specific disabilities, and general implications for instruction.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 761 - Curriculum Planning in Learning Disabilities (3)

Examination of basic concepts in curriculum design and their implications for selection and/or modification of curricula for individuals with specific learning disabilities in classroom and clinical settings.
Prerequisite: EDS 760 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 762 - Practicum in Remediation of Specific

 Disabilities (3)(May be reelected to 6 credits.) Supervised practicum in the identification, analysis, and remediation of specific learning disabilities.
Prerequisite: EDS 760, EDS 741, and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDS 764 - Practicum in the Assessment of Specific Learning Disabilities (3)
(May be re-elected to 6 credits.) Supervised practicum in the remediation of specific learning disabilities.
Prerequisite: EDS 741 and EDS 761, and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 765 - Program Planning for Special Education (3)
Analysis of factors affecting the design and implementation of special education programs for schools and/or alternative settings: foster homes, group homes, intermediate facilities, and regional centers. Program design and implementation under supervision.
Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 767 - Practicum in Remediation of Specific Learning

 Disabilities (3)(May be repeated to a maximum of 6 credits.) Supervised practicum in the remediation of specific disabilities.
Prerequisite: EDS 741 and EDS 761, and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EDS 768 - Practicum in the Assessment of Specific Learning Disabilities (3)

(May be repeated to a maximum of 6 credits.) Supervised practicum in the assessment of specific learning disabilities.

Prerequisite: EDS 742 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

EDS 770 - Study of the Person with Emotional Handicaps (3)

Study of the characteristics, development, and behaviors of the emotionally handicapped. Emphasis on implications for management and education.
Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## EDS 771 - Planning Curricula for the Person with Emotional Handicaps (3)

Techniques for analyzing the strengths and weaknesses of individual students with emotional handicaps. Practice in selecting goals to be sought in working with the student, in determining strategies for teaching, and in designing appropriate materials for use in working toward these goals.
Prerequisite: EDS 770 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
EDS 772 - Practicum in Teaching the Person with Emotional Handicaps (6)

Supervised practicum in teaching the emotionally handicapped.
Prerequisite: EDS 771 and permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
EDS 790 - Independent Study in Special Education. (1)
(May be re-elected for up to 6 credits). Individual study, under supervision.
Prerequisite: 18 credits completed in Special Education and permission of coordinator. Requirement Designation: Graduate Non-Liberal Arts.

## ENG - English

## ENG 682 - Independent Study (3)

(May be repeated once for credit, on a different topic.) This course offers an opportunity for individualized study of theory and research in composition.
Prerequisite: One year of study in courses offered by the Writing Project, and permission of the instructor and of the Graduate Program Coordinator in English. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 684 - Seminar in Writing: Theory (3)

Participants examine and evaluate current research on composing and on the teaching of writing. In addition to completing and responding to reading assignments,
participants attend presentations by invited guests. They take ENG 685 concurrently when the two are offered in the summer session, but may take the two courses successively during the academic year.

Prerequisite: Permission of the instructor. Corequisite: ENG 685 when offered in the summer session. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 685 - Seminar in Writing: Practice (3-4)

Students write and discuss their writing with groups of fellow students, developing their powers of expression and gaining confidence in themselves as writers. Strategies in writing, problems faced by writers, and the demands of various kinds of assignments are explored. Kinds of writing emphasized and approaches to the discussion of writing vary with the needs and interests of students.

Prerequisite: Permission of the instructor. Corequisite: ENG 684 when offered in the summer session.. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 686 - Special Studies in Language, Literature, and Writing (3)

(May be repeated once for credit, with change in topic.) Study of research and theory about reading, writing, the spoken language, and literature. Specific topic announced in advance.

Prerequisite: ENG 684 or ENG 685, or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 688 - Writing and Learning (3)

Through examination of different kinds of texts, through keeping notebooks and journals about their responses to those texts, and through discussion with classmates, students will explore a wide range of genres and emphases in discourse, and will consider how texts from varied disciplines may be read. Students will experience different approaches to the reading of the same text, will examine the differences in treatment of the same topic in different texts, how different texts depend for their effect on cross-references to other texts and to the culture of the world outside the text.
Prerequisite: ENG 684 or ENG 685, or consent of the instructor. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 700 - Introduction to English Studies (3)

Introduction to literary and writing studies, including an overview of major theoretical and research trends. Practice in research methodologies and in writing scholarly essays. To be taken at the start of graduate work.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 701 - History of the English Language (3)

Historical linguistics and the study of English, including analysis of selected texts from Old English through early modern English to illustrate the development of the English language. Attention will be paid to the phonology and grammar of the English language and their changes during the period, as well as the ways language is used for expressive ends in the selected literary examples.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 702 - Introduction Critical Theory (3)

Exploration of traditional and contemporary ways of theorizing about literature and literary or cultural study. A selective survey of major approaches, including structuralism, postmodernism, psychoanalytic theory, studies in gender and sexuality, Marxism, new historicism or cultural materialism, and/or postcolonialism.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 703 - Studies in Old English Language and Literature (3)

(No previous knowledge of Old English required.) Intensive study of Old English, combined with readings in Beowulf and selected Old English prose and poetry in the original language.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 705 - Studies in Medieval English Language and Literature (3)

Study of Chaucer and/or selected works of medieval literature in the original language.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 712 - Studies in the Renaissance (3)

Study of selected works of the Renaissance era. English literature from the sixteenth century to the death of Queen Elizabeth and/or the larger and multidisciplinary phenomenon of the European Renaissance.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 713 - Studies in Shakespeare (3)
Study of selected works in various genres, with attention to historical and critical approaches, reception history, and dramatic production.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 722 - Studies in Seventeenth-Century English Literature (3)

Study of Milton and/or selected works and topics in English literature from the ascension of James I through the Civil War, Commonwealth, and Restoration eras.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 730 - Special Topics in Literature and Film Studies (3)

The exploration of American and global cinema: history, techniques and topics, in films or in filmic adaptations of literary works.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 731 - Studies in Eighteenth-Century English

 Literature (3)Study of selected works and topics in English literature from the Restoration through the Revolutionary era of the late eighteenth century, with attention to the Transatlantic world and European Enlightenment.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 740 - Studies in Romanticism (3)

Study of selected works of the Romantic era. British literature and theory of the late eighteenth and early nineteenth centuries and/or the larger and multidisciplinary phenomenon of European and Transatlantic Romanticism.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 742 - Studies in Nineteenth-Century English

 Literature (3)Study of selected works and topics in English literature and culture from the Romantic, Victorian, and Edwardian eras.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 748 - Studies in American Literature to 1800 (3)
Study of selected works and topics in American literature and culture of the Colonial, Revolutionary, and Federal eras. Attention to literature in translation from the Americas.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 750 - Studies in Nineteenth-Century American Literature (3)

Study of selected works and topics in nineteenth-century American literature and culture.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 753 - Studies In Modernism (3)

Study of selected works of the Modernist era. English and American literature from the years before and after World War I and/or the larger and multidisciplinary phenomenon of European and global Modernism.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 755 - Studies in Twentieth-Century English Literature (3)

Study of selected works and topics in English literature and culture from the early twentieth century through the Cold War era of the 1950s-80s.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 756 - Studies in Twentieth-Century American Literature (3)
Study of selected works and topics in American literature and culture from the early twentieth century through the Cold War era of the 1950s-80s.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 757 - Studies in Contemporary Literature (3)
Study of selected works and topics in English literature from the late twentieth century to the present, with attention to postmodernist theory and cultural productions.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 758 - History of English Language (3)
Historical linguistics and the study of English, including analysis of selected texts from Old English through early modern English to illustrate the development of the English language. Attention will be paid to the changing phonology and grammar of the English language, as well as to how language is used for expressive ends in selected literary examples
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 759 - Structure of Modern English (3)

Grammatical theory and linguistic descriptions of modern English (such as traditional, descriptive, and transformational grammars), with an emphasis on the formal properties of grammar and the formal characterization of language. Studysamples of modern English will be drawn from literary works from the early modern English period to the present.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 760 - Studies Postcolonial Lit\&Theory (3)

Study of first-contact writing, native responses to colonialism, and/or postcolonial literature by English-language writers in India, Africa, the Caribbean, and elsewhere, as well as by diasporic writers in the U.S. and U.K. Attention to multidisciplinary and theoretical contest and innovation.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 761 - Studies in Literature and Film (3)

Study of film, with attention to stylistic and narrative strategies, historical and contemporary genres, and theoretical approaches. Emphasis on films of particular literary, cultural, or social significance.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ENG 762 - Studies in Gender and Sexuality (3)
Constructions of gender and sexuality in literature, film, arts, and the media. Emphasis on theoretical literature and its interrogation of feminism, queerness, masculinities, and related forms of social identity.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 763 - Studies in Multicultural American Literature

 (3)Selected work and topics in Native American, African and African American, Asian and Asian American, Latino/Latina, and/or other multicultural literary traditions in the U.S.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 764 - Studies in Race and Literature (3)

Constructions and representations of race and racial difference in literature, film, arts, and the media. Emphasis on intersections gender, ethnicity, class, and sexuality with race.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 769 - Studies in Drama (3)

Analysis of selected plays and playwrights.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 770 - Studies in Poetry (3)
Analysis of selected poems and poets.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 771 - Studies in Fiction (3)

Analysis of selected works of fiction and authors.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 773 - Women Writers in English (3)
Fiction, poetry, drama, and essays by women writers in the U.S., Great Britain, or the English-speaking world. Focus on particular times, places, and topics vary by instructor and semester.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 776 - Special Studies in Literature and Language (3)
(May be repeated once for credit with change of topic and permission of the Graduate Program Director.) Study of selected works or topics. Topics will change from semester to semester.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 782 - Independent Study (3)

(May be repeated once for credit with change of topic and permission of the Graduate Program Director.) Independent study under the guidance of a faculty adviser.
Prerequisite: Approval of the Graduate Program Director. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 783 - Practicum in Teaching College Writing (3)
Group and individualized instruction and practice, under the guidance of a member of the Lehman College English faculty, of the teaching of first-year writing courses at different levels. Attention is given to designing curricula for composition, constructing writing assignments, conducting classroom discussion of writing, responding to students' writing, and conducting informal classroom research.
Prerequisite: Approval of the Graduate Coordinator. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 784 - Readings in Composition and Rhetoric (3)
Overview of current theories and practices in the field of composition and rhetoric. Topics include the teaching of writing, contemporary communication and media, and survey of Western and non-Western rhetorical traditions.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 785 - Seminar in Writing: Practice and Theory (3)
Explores various practices in the teaching of writing and provides an overview of foundational theories in the field of composition and rhetoric. Writing assignments introduce students to effective writing strategies and to contemporary debates and practices.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 788 - Writing and Rhetoric in the Digital Age (3)
Explores how technology and the information age have changed writing and literacy. Students research and critique various forms of digital writing and compose "new media" texts for web-publication.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENG 790 - Special Topics in Composition and Rhetoric (3)
(May be repeated once for credit with a change in focus and permission of the Graduate Program Director.) Study of current scholarship in the field of writing, with emphasis on the interrelationship of composition, rhetoric, and issues of identity and community. Possible topics include race and writing, sexuality and composition, feminism and composition, and critical literacy and pedagogy.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 793 - Literacy and Community (3)

The role of literacy in various educational and community settings, with attention to public policy and writing-education, urban studies and composition, and writing and activism. Course includes a required service-learning component.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENG 795 - Master's Research (3)

(Required of all Masters candidates in English. Tutorial hours to be arranged.) Preparation of the Master's essay or thesis over one semester under the guidance of a faculty adviser.
Prerequisite: 15 completed credits and Graduate Program Director's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENW - English

## ENW 701 - Poetry Workshop (3)

Workshop discussion of student poems supplemented by selected poetic readings. Workshop content and methods will vary from semester to semester, depending on instructor expertise.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ENW 702 - Fiction Workshop (3)

Workshop discussion of student stories supplemented by selected readings in fiction. Workshop content and methods will vary from semester to semester, depending on instructor expertise.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENW 711 - Forms and Techniques in Poetry (3)
Emphasizes the study and practice of various forms and techniques in poetry, with attention to both traditional and contemporary models.

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ENW 712 - Forms and Techniques in Fiction (3)
Emphasizes the study and practice of various forms and techniques in fiction, with attention to both traditional and contemporary models.
Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ESC - M\&H School Ed

ESC 501 - Psychological Foundations of Education (3)
(Closed to students who have taken ESC 301 or equivalent.) Cognitive and emotional development from childhood through adolescence; learning theories; measurement and evaluation; inclusion of special student populations, and uses of relevant technology and software. Theories and research findings discussed in relation to classroom observations. Students will be responsible for assigned readings, lectures, class discussions, and field experiences.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 502 - Historical Foundations of Education: A Multicultural Perspective (3)

Study of the historical development of education and schools within the context of various communities and families. Emphasis on the school as a sociocultural institution: issues of equity and bias, and the contributions of the major racial and ethnic groups, especially in New York City schools. Presentation of relevant technology and software.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

ESC 503 - Community Change Model: Service-Learning Applied to Community Concerns \& Problems (3)

Design and implement community change model to engage youth and adults to both analyze and address community problems and concerns. Examine critical questions; conduct print and non-print research; and conduct community surveys, interviews and focus groups.
Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## ESC 506 - Special Needs Education in TESOL and Secondary Settings (3)

Identification, instruction, and assessment of special needs populations in secondary and TESOL settings. Laws and regulations pertaining to the education of special needs children; information on categories of disability, including autism; identifying and remediating specific learning disabilities; special education process; classroom management and positive behavioral supports and interventions; individualized and differentiated instruction; effective coteaching and collaboration. Fieldwork required.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 509 - Instructional Practices Across the Middle School Curriculum (3)

Principles, approaches, and strategies across the curriculum for teaching middle childhood students, grades 5-6, in accordance with local, State, and national standards.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 519 - Teaching Science in Middle and High School (3)

Research and practice in the teaching of science at the secondary school level. A focus on inquiry-driven methods consistent with current standards in science education, uses of technology and relevant software, teaching strategies, assessment, inclusion of special student populations, and development of science literacy with an emphasis on the teacher-as-learner. Includes field experience.
Prerequisite: ESC 501 or the equivalent course in psychological foundations of education; a 3.0 GPA overall; and Department permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 520 - Teaching Business Subjects in Middle and High School (3)
Methods and materials for teaching business subjects at the middle and high school levels. Curriculum development; current standards; lesson planning; instructional strategies; uses of technology; problem solving; assessment; inclusion of special populations; and literacy development in business subjects. Includes field experience. A research paper or curriculum project is required. Limited to master's level students seeking initial certification.
Prerequisite: ESC 501 or equivalent course in psychological foundations of education; 3.0 GPA overall; and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 522 - Teaching English in Middle and High School (3)
Limited to master's-level students seeking Initial Certification. Methods, materials, and assessment for teaching English at
the middle and high school levels. Developing academic literacy through English language arts and literature.
Curriculum development; use of relevant technology; current standards; instructional strategies; inclusion of students from diverse language backgrounds and students with disabilities. Includes field experience. Students cannot receive credit for both ESC 422 and ESC 522.
Prerequisite: ESC 501 or the equivalent course in psychological foundations of education; a 3.0 GPA overall; and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 524 - Teaching Foreign Language in Middle and High School (3)

Limited to master's-level students seeking Initial Certification. Methods, materials, and assessment for teaching foreign languages at the middle and high school levels. Developing communicative competence, academic literacy through the four skills, and cross-cultural awareness in a language other than English. Curriculum development; use of relevant technology; current standards; instructional strategies; inclusion of students from diverse language backgrounds and students with disabilities. Includes field experience. Students cannot receive credit for both ESC 424 and ESC 524.

Prerequisite: ESC 501 or the equivalent course in psychological foundations of education; a 3.0 GPA overall; and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 529 - Language and Literacies Acquisition in Secondary Education (3)

The teaching and acquisition of language and literacies through secondary content areas, including media literacy, with students of diverse language backgrounds and abilities. Curriculum development; current standards; inclusion of students with disabilities; and assessment. Includes field experience.
Cross-Listed as: LEH EDR 529/ESC 529. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 532 - Teaching Mathematics in Middle and High School (3)

Methods and materials for teaching mathematics at the middle and high school levels. Curriculum development; current standards; lesson planning; instructional strategies; uses of technology; problem solving; assessment; inclusion of special populations; and literacy development in mathematics. Includes field experience. A research paper or curriculum project is required. Limited to master's-level students seeking Initial Certification. Students cannot receive credit for both ESC 432 and ESC 532.

Prerequisite: ESC 501 or the equivalent course in psychological foundations of education; 3.0 GPA overall; and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 533 - Teaching World History in Middle and High School (3)

Theory and practice of curriculum, lesson planning, and national and State standards in middle and high school world history and geography courses. Uses of technology and relevant reviews of software, teaching strategies, assessments, and inclusion of special student populations. Includes supervised fieldwork in middle and high school.
Prerequisite: PRE- OR COREQS: ESC 501 (or equivalent) and/or ESC 502 (or equivalent), 3.0 GPA, and submission of scores on the CST. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## ESC 534 - Teaching U.S. History and Government (3)

Introduction to current theory on curriculum, alternate views on scope and sequence, lesson planning, and national and State standards in middle and high school social studies. Uses of technology; relevant software; alternative teaching strategies; different types of assessment; inclusion of special student populations; and literacy development in social studies. Includes field experience. Students cannot receive credit for both ESC 434 and ESC 534.

Prerequisite: PRE- OR COREQS: ESC 501 and/or ESC 502 (or equivalent), 3.0 GPA, and submission of scores on the CST. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 536 - Teaching Technology Subjects in Middle and High School (3)
Methods and materials for teaching technology subjects at the middle and high school levels. Curriculum development; current standards; lesson planning; instructional strategies; uses of technology; problem solving; assessment; inclusion of special populations; and literacy development in technology subjects. Includes field experience. A research paper or curriculum project is required. Limited to master's-level students seeking Initial Certification.
Prerequisite: ESC 501 or equivalent course in psychological foundations of education; 3.0 G.P.A. overall; and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 537 - Principles of Computer Science Education I (3)

Introduction of teaching methodologies (including micro teaching), curriculum design, assessment and research issues in computer science education. Examination of current best practices in computer science pedagogy.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 562 - Teaching Language Arts in Languages Other than English (3)

Limited to master's-level students seeking Initial Certification. Methods, materials, and assessment for developing literacy through language arts and literature in a language other than English at the middle and high school levels. Curriculum development; use of relevant technology and software; current standards; instructional strategies; inclusion of students from diverse language backgrounds and students with disabilities. Includes field experience.
Prerequisite: ESC 501 or the equivalent course in psychological foundations of education; ESC 524 and a 3.0 cumulative Grade Point Average; Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 590 - Staff Development Workshop for Teachers (13)
(May be reelected for credit with change of topics.) A workshop for teachers and curriculum specialists in teaching and/or developing curriculum materials for topics in specialized areas.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 595 - Internship in Classroom Teaching (1-3)

(May be re-elected once, with advisor's permission). Designed for graduate students who teach full-time, the course provides on-site supervisory visits. Assigned in-school activities are required.
Prerequisite: An average grade of B or better in the Content Area Teaching Methods course(s); an overall index of at least 3.0; Departmental permission; and approval from the Professional Development Coordinator. Corequisite: ESC 611. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 596 - Student Teaching in the Middle and High School Grades (3)

Student teaching in the middle and high school grades with on-site supervisory visits. Assigned in-school activities are required.

Prerequisite: An average grade of B or better in the Content Area Teaching Methods course(s); an overall GPA index of at least 3.0; Departmental permission; and approval from the Professional Development Coordinator. Corequisite: ESC 612. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

ESC 609 - Teaching Internship Seminar in TESOL (1)
Analysis of problems or practices in teaching ESOL P-12 teaching. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Prerequisite: Departmental permission. Corequisite: ESC 797. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 610 - Student Teaching Seminar in TESOL (3)

Analysis of problems or practices in teaching ESOL P-12 student teaching. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 611 - Teaching Internship Seminar in Secondary Education (1)

Analysis of problems or practices in secondary school teaching. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Prerequisite: Departmental permission. Corequisite: ESC 595. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 612 - Seminar in Secondary Student Teaching (3)

Analysis of problems or practices in secondary school teaching. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Prerequisite: Departmental permission. Corequisite: ESC 596. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 700 - Psychology in Education, Group Dynamics (3)

A laboratory course using here-and-now experiences in studying interpersonal perceptions, communication networks, group decision-making patterns, leadership, and structure. Development of skills in diagnosing and improving group functioning.
Prerequisite: Full-time teaching experience. Cross-Listed as: LEH ESC 700/EDE 700. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

ESC 701 - Advanced Educational Psychology (3)
Current psychological theory and research related to learning.
Prerequisite: Full-time teaching experience or Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 702 - Foundations of Education (3)

Studies of critical periods and movements in American education history, with emphasis on social, political, and intellectual developments and the role of leading education theorists as agents of change in education.
Cross-Listed as: LEH ESC 702/EDE 702. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 703 - School and Community (3)

Analysis of the environmental influences on learning, with special emphasis on education as a social process and social institution in an urban setting. A minimum of 10 hours' community field experience is required.
Cross-Listed as: LEH ESC 703/EDE 703. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
ESC 704 - Psychological Foundations of Adult Education,
Advanced Educational Psychology (3)
A study of the psychology, special needs, and developmental tasks of adulthood; applications to the teaching of students in continuing and adult education programs.
Prerequisite: Graduate standing or permission of the chair of the Department. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## ESC 705 - Methods of Educational Research (3)

Study of the methods, techniques, and strategies of research. Emphasis on educational research as a unique and necessary discipline and as a tool for solving educational problems. Development of a research proposal on a significant problem in candidates, field.

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 706 - Project Seminar I (1)

Discussion of methods of measurement and evaluation of teaching and learning. Development of the content and structure of the research project.

Prerequisite: ESC 705 (ESC 742 for mathematics education candidates) with a B or better and Departmental permission. Corequisite: ESC 707. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 707 - Project Seminar II (2)

Completion of the research project (begun in ESC 705) related to teaching in the candidate's field.

Prerequisite: ESC 705 (ESC 742 for mathematics education students) with a B or better and Departmental permission. Corequisite: ESC 706. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas (3)

Development of a culminating curriculum project in candidates' field that includes an analysis of contextual factors; integration of prior coursework and research; theoretical foundations of the discipline; learning goals; assessment plan; design of instruction; technology; analysis of student learning and reflection on teaching practice.

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 709 - Methods in Adolescent Classroom Management

 (1-3)Organizing and managing secondary classrooms; theoretical study, simulation, and application of theory to problems. Fieldwork hours required.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 710 - Education Workshop for Secondary School Teachers (3)
A workshop course designed to aid teachers in dealing with the situations and problems arising in their actual school experience. The activities of the course will vary with the demonstrated needs of the students.

Prerequisite: Employment as a teacher and undergraduate methods course in secondary education. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 711 - Perspectives on Middle School Education (3)

Overview of issues related to school environment in middle childhood education, grades 5-6. Characteristics of middle school students, school organization, and curriculum. Study of experimental programs and current research.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 713 - Restorative Practices \& Restorative Justice (3)
Knowledge and skills needed to create safe and healthy communities and implement restorative justice in schools, community organizations, business and government agencies.
Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.
ESC 714 - Teaching Art in Middle and High School (3)
Exploration of materials, processes, and techniques appropriate for teaching art for middle and high school students. Students design art experiences that incorporate expression, response, art history, and culture. Includes field experience.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 720 - Reading and Reading Materials for Adolescents

 (3)Remedial and developmental methods of reading instruction for teachers and reading specialists. Selecting, developing, and using appropriate materials.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 721 - Literature for Middle and High School Students (3)

An exploration of literature-both classical and contemporaryrelevant to middle and high school settings. The role of such literature in the secondary-school curriculum, with particular attention to literary response and its assessment. Review and analysis of selected related research.
Prerequisite: Permission of instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 722 - Teaching Communication Skills in the Content Areas (3)

An examination of the techniques, strategies, and procedures for developing in students the ability to improve their skills in writing, speaking, and listening in the content areas. Review and analysis of selected research and instruction in a variety of pedagogic techniques.
Prerequisite: Permission of the Program Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 723 - Teaching Reading in the Content Areas (3)

An examination of programs, strategies, and procedures for developing in students the ability to read books, articles, and other study materials in the content areas. Review and analysis of selected research related to content area reading.
Prerequisite: Provisional certification in a secondary-school subject, or permission of instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 724 - Methods of Teaching Writing in Middle and High School (3)

Consideration of methods of teaching composition in the middle and high school English classroom, with attention to the linguistic, cognitive, and rhetorical theories that generate current practices in writing instruction. Review and analysis of selected research.

Prerequisite: ESC 722, ENG 785, or the equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 725 - Teaching English Grammar (3)

Study of techniques and procedures for developing in students the ability to analyze the English language and to use standard written English. Consideration of linguistic analysis in the light of current school texts and practices. Includes field experience.
Prerequisite: Permission of the instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 727 - Teaching English as a Second Language (Pre-K

 to Grade 6) (3)Methods and materials for developing academic language and content literacy skills for PreK-grade 6 English language learners. Role of family, home language, cultural and community orientation, and prior schooling; standards-based curriculum development and assessment; use of relevant technology; instructional strategies; inclusion of students from diverse language backgrounds and students with disabilities. Includes field experience.
Prerequisite: Permission of TESOL adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 733 - Teaching Music in the Middle Schools (3)

Knowledge, skills, and abilities needed to teach music in middle schools in diverse neighborhoods and the role of national, State, and City standards in the assessments of student achievement. Includes supervised fieldwork in middle schools in a variety of socioeconomic areas.
Prerequisite: Admission to M.A.T. program in applied music and music teaching or permission of the Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 735-Curriculum, Research and Current Issues in Art Education (3)

Contemporary issues and approaches to art education. Research project relates student's art production, curriculum development, and philosophical approach to art education and children's artwork.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 740 - Teaching Mathematics in Grades 7-10 (3)

Methods and materials for teaching mathematical concepts and skills in the contemporary intermediate grades that bridge middle- and high-school instruction; models of instruction; analysis of students errors and misconceptions; strategies for teaching selected topics; problem solving; alternative assessments and technology in mathematics instruction; nonpublished classroom inquiry projects. Includes field experience ( 25 hours).

Prerequisite: Calculus I and II. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 741 - Current Issues in Mathematics Education (3)

Implications of current reform efforts pertaining to the teaching of mathematics, analysis of new curriculum projects and testing programs in the secondary school; use of materials and technological aids or instruction.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 742 - Research in Mathematics Education (3)
Review of the research literature; theories of learning mathematics; alternative assessment; technology in mathematics instruction. A research paper is required.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School (3)

Introduction and application of heuristic techniques to facilitate mathematical problem solving in Grades 7-12; use of technology as a problem solving tool; assessment. Problems will be analyzed on both teacher and pupil levels. (Includes 25 hours fieldwork in grades 10, 11, and 12 for those with 5-9 certification seeking 7-12 certification).

Prerequisite: Calculus I and II. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 749 - Teaching Mathematics in Grades 11 and 12 (3)
Methods and materials for teaching mathematical concepts (e.g., real number system, functions, mathematical induction, sequences and series, analytic Methods and materials for teaching mathematical concepts (e.g., real number system, functions, mathematical induction, sequences and series, analytic geometry, transformations, probability, topics in calculus) in the upper grades of high school; problem solving mathematical modeling; uses of technology (e.g. graphing calculators and computer software) including related social, legal and ethical issues. (Includes 25 hours fieldwork in grades 10, 11, and 12 for those with 5-9 certification seeking 7-12 certification).
Prerequisite: Calculus I and II. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

ESC 750 - Theory and Practice in the Social Sciences (3)
Designed to acquaint the graduate student of Social Studies Education with advanced concepts and methodology of the social sciences and the manners in which these can be taught to high school students.

Prerequisite: Employment as a teacher and undergraduate methods course in secondary education. Requirement

Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 755 - Teaching the Historical Development of Science (3)

Teaching the historical development of science from an interdisciplinary perspective. Critical analysis of different views of scientific knowledge and their implications for the classroom.

Prerequisite: ESC 502 or ESC 702 and ESC 770. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 757 - Linguistics for TESOL/Bilingual Teachers (3)

The study of language, including phonetics/phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics, applied to the teaching of language and content to linguistically and culturally diverse students.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 759 - Foundations of Bilingual/Bicultural Education

 (3)Bilingual/bicultural education, including history, goals, models, rationale, legal and legislative basis, linguistic principles, and language evaluation. Current issues and research findings in bilingual/bicultural education will be studied. Includes field experience.

Prerequisite: ESC 501, ESC 502, or ESC 703 (or an equivalent) and permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 760 - Second-Language Learning and Teaching (3)

The psychological principles of second-language learning with their application to teaching. Similarities and differences between first- and second-language learning and teaching. Includes field experience.

Prerequisite: One course in educational psychology. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 761 - Teaching English as a New Language, grades 5-

 12 (3)Methods, materials, and assessment for teaching English language and literacy to middle/ high school English learners/ bilingual learners. Curriculum development; relevant technology; current standards; lesson planning; instructional strategies; inclusion of students with disabilities. Includes field experience.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 762 - Methods of Teaching Foreign Languages in Secondary Schools (1-3)

(May be re-elected for credit, with adviser's permission, with change of topic, to a maximum of 6 credits.) Selected topics reflecting current practices in language education.
Prerequisite: Provisional certification or permission of the Department chair. Requirement Designation: Graduate NonLiberal Arts.

## ESC 763 - Teaching Secondary Bilingual Language Arts and Content Literacy (3)

Methods, materials, and assessment for teaching language arts and content literacy (e.g., mathematics, science, and social studies) to middle/ high school bilingual learners in the home language and in English. Application of second language acquisition principles; curriculum development; relevant technology; current standards; instructional strategies; inclusion of students with disabilities. Includes field experience.

Prerequisite: ESC 759 (or an equivalent). Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 764 - Workshop in Modern Materials and Methods of Foreign Language Teaching I and II (Secondary Schools) (3)

(I) Study and discussion of recent research in the field and its application to language teaching. Practices and techniques for developing aural-oral competency and other communication arts and skills. Selection and utilization of materials in the field that meet current objectives in foreign-language teaching. (II) Study and demonstration of audiovisual teaching tools and devices. Preparation and demonstration of teachermade materials. Newer techniques for evaluating a foreign language in the secondary schools.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 765 - Workshop in Modern Materials and Methods of Foreign Language Teaching I and II (Secondary Schools) (3)
(I) Study and discussion of recent research in the field and its application to language teaching. Practices and techniques for developing aural-oral competency and other communication arts and skills. Selection and utilization of materials in the field that meet current objectives in foreign-language teaching. (II) Study and demonstration of audiovisual teaching tools and devices. Preparation and demonstration of teachermade materials. Newer techniques for evaluating a foreign language in the secondary schools.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 766 - Teaching English as a New Language Through the Content Areas (3)

Methods, materials, and assessment for teaching content literacy (e.g., language arts, mathematics, science, social studies) to English learners/ bilingual learners. Application of second language acquisition principles; curriculum development; relevant technology; current standards; instructional strategies; inclusion of students with disabilities. Includes field experience.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 767 - The Museum as a Resource for Teaching Science (3)

An introduction to the use of the museum as a resource for teaching and learning science.

Prerequisite: ESC 502 or ESC 702 and ESC 770. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 768 - Education Workshop for Teachers of Students of Puerto Rican and Latino Origin (3)

A workshop designed to help teachers deal with the situations and problems arising out of their actual school experiences. Emphasis will be placed on the preparation, demonstration, and discussion of instructional materials needed for developing communications skills.

Prerequisite: Employment as a teacher and a course in methods of teaching in the secondary school. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 769 - Latinos in U.S. Schools (3)

Interdisciplinary study of educational issues affecting Latinos in the United States, with a focus on the urban school setting: educational, historical, literary, linguistic, and sociological sources will be utilized to analyze issues.

Prerequisite: ESC 501 or ESC 502 (or an equivalent) and permission of the adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics (1-3)

(May be reelected for credit, with adviser's permission, with change of topic, to a maximum of 6 credits.) Strategies for teaching a single science and interdisciplinary science topics at the secondary and postsecondary levels. Emphasis on research related to improving the teaching and learning of science and on techniques and materials that meet the needs of contemporary students.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## ESC 771 - Integrating Mathematics, Science and Technology in Middle School Teaching and Learning (3)

Identification and examination of key concepts and issues in the teaching of mathematics and science to high-need culturally and linguistically diverse middle school students. Modeling and design of effective instructional strategies that incorporate mathematics and science concepts with supporting technological applications.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 772 - Evaluation and Assessment of Student Learning (3)

Systematic introductory course for graduate students. The fundamentals of evaluation and assessment of student learning in middle and high schools, including: writing objective test items, methods of evaluating and assessing student learning, up-to-date instruments for evaluating and assessing aptitude and achievement in the active, inquiry-based, cooperative classroom, and alternative assessment techniques, including use of portfolio assessment and rubrics.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 773 - Project-based Learning in the Middle School STEM Classroom (3)

Examination of the process of integrating technology, engineering and mathematics with science content in the middle school science classroom. Emphasis on design, development, and delivery of project-based learning activities consistent with current science learning and content standards; practical strategies for understanding and managing STEM classrooms.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 775 - Problems of Secondary Education in Metropolitan Areas (3)

Social structures of urban life and their impact on the problems and future forms of the urban secondary school. Critical examination from a variety of viewpoints of major issues in curriculum, methods, pupil achievement, and organization of the secondary school, arising from urbanization.

Prerequisite: One course in educational foundations. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 776 - Multiethnic and Multicultural Education (3)
Multiethnic and multicultural education, including history, goals, models, rationale, legal, and legislative basis. Current issues and research findings in multiethnic and multicultural
education and major ethnic and subcultural groups in urban school settings will be studied.

Prerequisite: ESC 701, or ESC 702, or ESC 703 (or an equivalent), and permission of adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 777 - Philosophy of Education (3)

Examination of alternative standards of judgment presented in the philosophies of experimentalism, realism, idealism, and existentialism, and in philosophic analysis. Central consideration given to the problems of educational goals and curriculum posed by conflicting philosophies of education.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 778 - History of the American School (3)

Public education from the colonial period to the present, with particular emphasis on the interrelationships between education and culture, political, and economic developments.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESC 779 - European Backgrounds of American Education (3)

Cultural and institutional origin of American elementary, secondary, and higher education. Educational interchange between the United States and Europe in the nineteenth and twentieth centuries.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 780 - Comparative Education (3)

Comparative study of school organization, curricular practices, and contemporary educational problems in selected foreign countries. Special attention will be given to the study of issues that have cross-cultural dimensions
Cross-Listed as: LES ESC 780/EDE 780. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 781 - Advanced Studies in Comparative and International Education (3)

Intensive and specialized studies in selected systems of education, using appropriate methodologies in comparative education. Review and evaluation of the work of bilateral and international technical assistance for educational development.
Prerequisite: EDE 780 or ESC 780 or instructor's permission. Cross-Listed as: LEH ESC 781/EDE 781. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESC 782 - Methods of Teaching Business and Technology Education. Selected Topics (3)

(May be re-elected for credit, with adviser's permission, with change of topic, to a maximum of 6 credits.) Strategies for teaching courses or special topics in business and technology education in adolescence and adult learning settings.
Emphasis on research related to improvement of instruction in business and technology education areas and techniques and materials that meet the needs of contemporary students.

Prerequisite: Permission of the Department chair.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
ESC 785 - Methods of Teaching Music in the Secondary School and Adult Education (3)
Strategies and materials for teaching music in secondary and continuing education settings, reflecting current practices in music education.

Prerequisite: Preadmission to the M.A. in Music Education program or permission of the Graduate Adviser in music education. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 788 - Curriculum Theory and Design (3)

Study and analysis of curriculum theories, processes, and trends in middle and high school education. Focus on various philosophical positions as they influence curriculum development in middle and high schools and other educational settings. A curriculum project is required.

Prerequisite: Graduate standing or permission of the Department chair. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## ESC 789 - Independent Study in Curriculum Development (1-3)

(May be re-elected for credit, with chair's permission, with change of topic.) This course offers an opportunity for middle and high school teachers and curriculum specialists, under the guidance of a faculty member, to carry out an individual project in developing instructional materials adapted to specific groups.
Prerequisite: For business and technology education students only, ESC 782, ESC 788, and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 790 - Workshop in Curriculum Materials Development in Specialized Areas (1-3)

(May be re-elected for credit, with chair's permission, with change of topics.) A workshop for teachers and curriculum specialists interested in developing instructional materials for topics in specialized areas.

Prerequisite: Completion of TESOL methods courses with a grade of B or better; an overall index of 3.0 or better; passing scores on the ESOL; and permission from the Professional Development Coordinator. Corequisite: ESC 611.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 797 - Teaching Internship in TESOL (2)

Supervised teaching in ESOL in elementary and secondary education settings or in adult education settings for in-service teachers. Assigned in-class activities required.
Prerequisite: Completion of TESOL methods courses with a grade of B or better; an overall index of 3.0 or better; submission of ESOL CST scores; and permission from the Professional Development Coordinator. Corequisite: ESC 609. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESC 798 - Student Teaching in TESOL (3)

Student teaching in ESOL in elementary and secondary education settings or in adult education for pre-service teachers. Assigned in-class activities required.
Prerequisite: PREREQ: Completion of TESOL methods courses with a grade of B or better; an overall index of 3.0 or better; submission of EAS, and ESOL scores (Seq. 2, 4); and permission from the Professional Development Coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS - Special Topics

## ESS 500 - Reading and Writing Connections (3)

An introduction to reading and writing development of culturally and linguistically diverse adolescents. Exploration of the ways in which reading and writing interact. Study of online approaches to facilitate strategic reading of a variety of texts.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 501 - Writing and Reading in the Content Areas (3)

Development and critique of curriculum units to advance familiarity and comfort with a variety of texts and written forms that build academic skills in secondary school social studies, science, mathematics, and literature classrooms. Emphasis is on written, oral, and visual strategies to promote comprehension, reflection, and support for the academic development of culturally and linguistically diverse adolescents.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 671 - Family Development (3)

(See description under FCS (ESS) 671.)
Cross-Listed as: LEH FCS 671/ESS 671. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESS 705 - Project Seminar I (3)

Formulation by each student of a significant project related to a special field in education: definition, design, and method for carrying out the project; recapitulation of relevant material; and completion of an outline. Students will work individually, or in small groups, with an instructor.

Prerequisite: Permission of the program coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 706 - Project Seminar II (3)

Completion of the project undertaken in ESS 705, including a written report on the research or curriculum development carried out, the results of the work, the bases for evaluating the results, and the author's recommendations to others interested in the subject.

Prerequisite: ESS 705. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 719 - The Dynamics of Working with Groups (3)

An investigation of theories and research in the area of classroom group dynamics. Study of group development and classroom behavior. Supervised experience in conducting classroom group discussions, guided observation of large and small groups in action, and directed reading in the literature of classroom group behavior.

Prerequisite: Graduate adviser's permission. Field experience or working with a group may be required. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESS 766-Comparative Analysis of English and Spanish I

 and II (3)A descriptive study of American English and Spanish, based on current usage. A systematic outline of the sound system, the language patterns, and the vocabulary of both languages. II. Comparison and contrast of the linguistic features of both languages.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

ESS 767 - Comparative Analysis of English and Spanish I and II (3)

A descriptive study of American English and Spanish, based on current usage. A systematic outline of the sound system, the language patterns, and the vocabulary of both languages.
II. Comparison and contrast of the linguistic features of both languages.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 771 - Mental Hygiene (3)

Current problems in mental hygiene of the child. Mental hygiene factors in the nursery school and kindergarten, preschool, middle school, later childhood, and adolescent periods.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 782 - The Slow Learner (3)

The organization of appropriate programs and curricula and the techniques of instruction for the slow learner in elementary and secondary schools.
Prerequisite: Full-time teaching experience. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESS 783 - Education of the Gifted (3)

Analysis of the nature and development of gifted children and of educational provisions indicated for them in modern theory and practice. Workshop, research, and case-study procedures stressed.

Prerequisite: Teaching experience. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 785 - Microcomputers in Specialized Educational Services (3)

This course provides a comprehensive overview of computer applications in the areas of counseling and guidance, family and consumer studies, reading, and Special Education. Use of computers to deliver specialized educational services to students across a broad range of ages and instructional needs will be emphasized.

Prerequisite: Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## ESS 789 - Workshops in Curriculum Design (1-3)

(May be re-elected for credit, with graduate adviser's permission, when the topic changes.) Theoretical and practical approaches to design of curricula.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## ESS 790 - Workshops in Curriculum Materials Development (1-3)

(May be re-elected for credit, with Graduate Adviser's permission, when the topic changes.) Selection and development of instructional materials.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 793 - The Mass Media in Education (3)

Techniques for planning, selecting, using, and evaluating the mass media in light of research findings, curriculum objectives, and the needs of students.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
ESS 794 - Technological Resources for Teaching and Learning (3)
Techniques for planning, selecting, using, and evaluating technological systems and aids for learning and teaching. These will be examined in light of research findings, curriculum objectives, and the needs of students. Programmed materials and associated equipment: projectors, recordings, closed-circuit television, video and kinescope recording, automated record keeping, and measurement devices.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## ESS 795 - Audiovisual Instruction for the Classroom Teacher (3)

The contribution of audiovisual instructional media (including slides, filmstrips, films, records, computers, and radio and television) to learning. Research equipment, materials, and methods of use for effective teaching and maximal learning. The selection, preparation, creation, and use of audiovisual materials to enrich the learning situation.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EXS - Exercise Science

## EXS 501 - Physical Activity, Exercise and Fitness (3)

Exploration of the role of physical activity and exercise in the development and maintenance of health and fitness. Guidelines for physical activity and exercise in relation to health benefits are examined across the entire lifespan (infancy, childhood and adolescence, adulthood, and older ages), with consideration to the broader implications of their impact on local and global challenges.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 502 - Advanced Exercise Physiology (3)
Human anatomy and physiology as related to physical activity, exercise, and work. Study of the musculoskeletal, endocrine, cardiovascular, and pulmonary systems; bioenergetics; and body composition, anatomy and physiology of aging, and health-related benefits.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.

## EXS 503 - Advanced Research Methods in Exercise

 Science (3)Concepts of research and evaluation in exercise science. Techniques of measurement and methods of analyzing and interpreting data.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.

## EXS 504 - Advanced Exercise Testing and Prescription (3)

Principles of fitness and the development of exercise programs to enhance health and/or human performance in a variety of settings. Methods of evaluating physiological adaptation to exercise, using laboratory and field experiences.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 505 - Advanced Sports Nutrition (3)
Nutritional and metabolic requirements of physical activity. The health and well-being benefits of an optimal diet-exercise regimen for physical activity, exercise, and sport participation will be emphasized.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.

## EXS 506 - Applied Training Methodologies (3)

Applications of strength and conditioning theories and training principles including fitness testing, protocol design and goal assessment to clients in diverse exercise and fitness settings.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 615 - Advanced Kinesiology and Biomechanics (3)
Study and application of anatomic and mechanical principles of human movement.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 616 - Advanced Motor Learning and Performance (3)
Effects of psychological, social maturational, and neurophysiological factors on the learning and performance of movement patterns.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 626 - Fitness Management and Marketing (3)
Management and marketing principles as they relate to budget, facility design, purchasing, scheduling, programming, and personnel issues in the field of exercise science and wellness.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.

## EXS 665 - Psychology of Sport (3)

Theories, concepts, and intervention techniques of sport psychology. Topics covered include motivation theory applied to sport, team dynamics, psychological skills training, the psychology of sport injury, and burnout in sport.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 680 - Selected Topics in Exercise Science (3)
(May be reelected for a maximum of 6 credits.) Examination of various topics in exercise science. Topics to be announced each semester.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## EXS 790 - Thesis Workshop 1 (3)

Development of competency in effective scientific writing and critical analysis of research.
Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.

EXS 791 - Thesis Workshop 2 (3)
Design and execution of a publishable research study on an exercise-related topic that demonstrates content expertise.

Prerequisite: Departmental Permission. Requirement Designation: Graduate Non-Liberal Arts.
EXS 795 - Capstone Project Workshop (3)
Design and execution of a publishable narrative or systematic review on an exercise-related topic that demonstrates a thorough understanding of the literature.
Prerequisite: Departmental Permission. Requirement
Designation: Graduate Non-Liberal Arts.

## FCS - Family and Consumer Studies

FCS 501 - Current Problems in Family and Consumer Studies (1)
(Open to all graduate students. May be re-elected by FCS matriculants up to a maximum of 8 credits with a change in topic.) Topics will be announced before the start of each semester.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
FCS 503 - Current Problems in Family and Consumer Studies (3)
(Open to all graduate students. May be reelected by F.C.S. matriculants up to a maximum of 9 credits with a change in topic.) Topics will be announced before the start of each semester.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

FCS 571 - The Family and the Law (3)
Examination of laws that directly affect the family: laws pertaining to marriage, adoption, estate planning, foster care, and family relations. Emphasis on the work of Federal, State, and local agencies; and legal requirements, proscriptions, etc., in the areas of consumer health protection, housing, and financial management.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 601 - Seminar in Family and Consumer Studies (1)

(May be reelected for credit as often as the topic changes.) Recent developments in specific topics.

Prerequisite: Chair's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 611 - Clothing Management (3)

Recent developments in the production, purchase, and utilization of textiles and clothing as they relate to the management of personal and family problems. Evaluation of methods and materials for teaching clothing management.
Prerequisite: FCS 202 and FCS 302 (or equivalents).
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 651 - Housing for Family Living I (3)

The effect of housing and home environment on the quality of family living. Criteria for the selection of rented, owned, and public housing to fit individual family needs. Trends in housing and community planning. Individual and family responsibilities for improving housing.
Prerequisite: FCS 180 and FCS 219 (or equivalents). Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 652 - Housing for Family Living II (3)

Analysis of social and physical design features in old and new housing, public and private, with concentration on the effect of housing and home environment on family living. Interrelationship of design and problems of livability with principles of space planning and the effect of design on housing and maintenance costs.
Prerequisite: FCS 651. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 661 - Developing Family and Consumer Studies Program (3)

Principles, procedures, and problems in developing school and community education for home and family living, with emphasis on curriculum building and improvement of instruction in family and consumer studies.

Prerequisite: ESC 431; Permission of the coordinator. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 671 - Family Development (3)

Study of the family cycle, with focus on developmental tasks and changing roles of family members. Proposals for strengthening families. Review of methods and materials for secondary-school teaching of family living.

Cross-Listed as: LEH FCS 671/ESS 671. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## FCS 672 - Economic Problems of Family (3)

Study of the economic status of American families with respect to incomes, employment, housing, and social security. Factors affecting cost of living. The contribution of resource management to the economic welfare of families.
Consideration of methods and materials for the teaching of family economics and home management.

Prerequisite: FCS 316 and FCS 307 (or equivalents). Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 673 - Home Economics-Aspects of Consumer Education (3)

Selection and use of goods and services related to improvement of family living. Individual studies of consumption practices and selected consumer problems. Responsibilities of home economists as consumer advisers.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## FCS 674 - Seminar in Human Sexuality (3)

Analysis of current trends, problems, and issues.
Prerequisite: FCS 671 and graduate coordinator's permission. Cross-Listed as: LEH FCS 674/HEA 625. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## GEH - Geography

GEH 501 - Principles of Geography (3)
(Not open to students who have had an introductory course in principles of geography.) Distribution and characteristics of the elements of the natural and cultural environment and analysis of their interrelationships.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEH 502 - World Regional Geography (3)

Study of each of the world's major regions, characteristics of homogeneity, and attributes of each region, including physical
environment, population, culture, agriculture, economic development, urbanization, and political geography.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring
GEH 611 - Geographic Interpretation of World Affairs (3)
Analysis of the geographic influences of the world's political, social, and economic problems.
Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEH 612 - Geographic Basis of World Trade (3)

Study of world transportation and communication, the interdependence of geographic regions, and the geographic factors influencing international trade.

Prerequisite: GEH 614 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEH 613 - Conservation of Natural Resources (3)
The physical and human resources of the world and the needs and methods for their conservation.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEH 614 - Economic Geography (4)
Geographic analysis of the major economic activities of the world.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEH 621 - The Geography of the U.S. and Canada (3)

An introduction to the physical geography, natural resources, population and urban distribution, cultural patterns, and economic geography of the U.S. and Canada. Attention given to changes being brought about by the North American Free Trade Act.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

GEH 622 - The Geography of Latin America (3)
An introduction to the physical geography and natural resources, population and urban distribution, cultural patterns, and economic geography of Latin America.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEH 624 - The Geography of Asia (3)

An introduction to the physical geography and natural resources, population and urban distribution, cultural patterns, and economic geography of Asia.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEH 625 - The Geography of Western Europe (3)

An introduction to the physical geography and natural resources, population and urban distribution, cultural patterns, and economic geography of Western Europe.
Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

GEH 626 - The Geography of Eastern Europe and the Former Soviet States (3)

An introduction to the physical geography and natural resources, population and urban distribution, cultural patterns, and economic geography of Eastern Europe and the former Soviet States.

Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

GEH 630 - Geography of the New York Metropolitan Area (3)

The location, terrain, harbor, climate, and other aspects of the geographic base on which the New York metropolitan area has developed. Relationship of these factors to the genesis, growth, spatial characteristics, and problems of human occupance.
Prerequisite: GEH 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO - Geology

## GEO 501 - Earth Processes (3)

Processes interconnecting the spheres of the Earth system.
The materials and structure of the Earth and the major biogeochemical cycles.

Corequisite: GEO 509.. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 502 - Earth History (3)

The geological history of the Earth system. Hypothesis of Earth's origin; major events and changes in paleogeography, climate, and the evolution of life through geologic time as preserved in the rock and fossil records.
Prerequisite: GEO 501 (or equivalent). Corequisite: GEO 510. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEO 503 - Geologic Field Methods (3)
Methods of geologic mapping. Classroom work and fieldwork.

Prerequisite: GEO 501 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 504 - Fossils, Time, and Evolution (3)

The morphology, preservation, and interpretation of key fossils.

Prerequisite: GEO 502 (or equivalent). Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 505 - Earth Materials I -Mineralogy (3)

The rock--forming and accessory minerals; other selected minerals.

Prerequisite: GEO 501 (or equivalent) plus one year of high school or college chemistry. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 506 - Earth Materials II —Petrology (3)

The common igneous, sedimentary, and metamorphic rocks of the earth's crust.

Prerequisite: GEO 505. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 507 - Earth Structures (3)

Large- and small-scale structures in the crust and their modes of origin.

Prerequisite: GEO 502 and plane geometry. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 509 - Earth Processes Laboratory (1)

Study of important minerals and rocks, geologic time, maps, seismicity, plate tectonics.

Corequisite: GEO 501. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 510 - Earth History Laboratory (1)

Study of important scientific method, minerals and rocks, fossils, relative and absolute dating, stratigraphic correlation, and geologic history.
Corequisite: GEO 502. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 528 - Weather and Climate (4)

Study of atmospheric phenomena and weather instruments and a general introduction to meteorological processes. Description and explanatory analysis of the climates of the Earth.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 580 - Topics in Geology (3)

Study of a range of introductory topics in Geology including plate tectonics, rock cycle, regional geology and earth evolution. Topic to be determined by instructor and approved by program advisor/director.

Corequisite: GEO 581. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## GEO 581 - Topics in Geology, Laboratory (1)

In-class laboratory or field experience aligned with and determined by topic selected for GEO 580 Introductory Studies in Geology.
Corequisite: GEO 580. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## GEO 599 - Studies in Geology (4)

Advanced, in-depth study and research of a specialized topic in Geology that is not covered by existing courses. (May be elected for a maximum of 8 credits.)

Prerequisite: Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEO 601 - Earth Systems Science for Educators (4)
Introduction to earth systems science from the perspectives of systems components' origin, evolution, structure, and composition; presentation of the dynamic processes that link them. The course is designed for science education students seeking New York State teaching certification in earth science, grades 7-12. It takes a standards-based, hands-on approach to presenting content and pedagogy in parallel.
(Fieldwork hours required.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 603 - Global Plate Dynamics (4)

Plate tectonics as a unifying theory for the dynamic processes that connect the exterior and interior of the planet and shape its surface. Plate boundary characteristics, driving mechanisms, plate motion, relationships to climate and biodiversity, and global implications for the Earth system. Laboratories include geologic map study and techniques of measuring, plotting, and interpreting structural and plate motion data.

Prerequisite: GEO 501, GEO 502, or GEO 601. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

GEO 605 - Advanced Earth and Environmental Science with Geographic Information Systems (GIS) (4)
This course explores earth and environmental sciences using advanced GIS applications and concepts, including environmental modeling and spatial analysis of landslides, earthquakes, soil erosion, stream sedimentation, groundwater flow, ecosystem stability, global climate change, and other earth processes.
Prerequisite: GEP 505 or equivalent, or Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 640 - Urban Geological Science (3)

Relationships of geology to landscape, construction, and transportation; examination of the source use of various architectural materials; resource uses in urban settings.
Prerequisite: Instructor's Permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 645 - Earth Materials and Resources (4)

Fundamentals of mineralogy and petrology with a focus on common rock-forming minerals, crystal structure, mineral and rock identification, soil, water, and other natural resources within the context of biogeochemical cycles.

Prerequisite: GEO 501 and GEO 502 or equivalent. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEO 697 - Independent Study in Geology (2-6)

Independent study of selected topics in geology under the guidance of a faculty member. Number of credits to be determined in consultation with faculty advisor prior to registration. Permission of the Graduate Adviser required.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP - Physical Geography

## GEP 501 - Weather and Climate (4)

Study of atmospheric phenomena and weather instruments and a general introduction to meteorological processes. Description and explanatory analysis of the climates of the earth.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 504 - Basic Mapping Applications and Analysis (3)

This course provides a focus on mapping: how to use maps to obtain information about a wide variety of topics and how to create maps to display and analyze both quantitative and qualitative data. Discussions include mental maps, aerial photos, remotely sensed images, computer-assisted cartography, and Geographical Information Systems (GIS). Laboratory work includes digital map applications and GIS mapping exercises.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 505 - Principles of Geographic Information Science (3)

The use of Geographic Information Systems in the teaching of social, earth, and life sciences. Demographic studies and graphic presentation of demographic analyses. The use of modern mapping techniques in studies of the Earth Environment.

Prerequisite: GEO 501 or GEH 501 or Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 530 - Urban Environmental Management (3)

Review of issues and problem-solving techniques for critical environmental concerns in the urban habitat, covering the key elements of urban environmental infrastructure, pollution and its effects on human health, environmental planning and policymaking, and the regulatory framework of environmental protection.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 602 - Biogeography and GISc (4)

The methods and techniques used to examine the past and current distribution of organisms, in the context of geophysical, evolutionary, and ecological processes. Study of the geographic ranges of living organisms and discussion of numerous relevant topics. Lab work will provide students with hands-on experience using GISc to explore such concepts as species distribution, island biogeography, and community fragmentation.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 605 - Special Topics in Geographic Information Systems (4)

May be reelected when topic changes, for a maximum of 8 credits. Use of Geographic Information Systems for conducting research and spatial analyses in the natural and social sciences. The advanced use of computer mapping and spatial analysis technologies for studying the physical and human components of the earth's environment.
Prerequisite: GEP 505 or Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 606 - Raster Analysis (3)

Focusing on the structure and the various ways in which raster data can be created, modified, and analyzed using a Geographic Information System (GIS). Topics include surface analysis, multi-criteria/multi-objective evaluation, and map algebra. The course combines lectures with weekly laboratory exercises designed to apply the concepts from the lectures and to develop students' expertise with GIS processing software.

Prerequisite: GEP 205 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 610 - Spatial Analysis of Urban Health (3)

This course focuses on urban health issues using a geographical framework and covers topics such as the historical perspective of health, place, and society; mapping and measuring health and health impacts; the social and
spatial patterning of health; the geography of health inequalities and disparities; health and social/spatial mobility; and the effects of urban segregation, overcrowding, and poverty on disease. Current research, as well as the seminal early works on the geographies of health, will be reviewed. Geographic Information Science will be used in the laboratory exercises to illustrate the theoretical concepts and to produce worked examples of health geography.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 620 - Demography and Population Geography with GISc (3)

The world's population in the context of geography and demography. The theoretical framework, defined by the fields of population geography and demography, will be studied and explored qualitatively and quantitatively. Data sources and acquisition, population metrics (growth, change distribution, and composition), population and food supply, mortality, fertility, and migration. Lab work will provide students with hands-on experience using GISc to explore demographic concepts.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEP 621 - Principles and Applications in Remote Sensing (4)

In this course, students will learn the fundamental concepts and principles of electromagnetic theory in remote sensing, becoming familiar with the characteristics, capabilities, and limitations of past, current, and planned future remote sensing systems, and develop practical skills in interpreting aerial photographs, satellite optical remote sensing data, and thermal and radar imagery. Students will also be exposed to a wide variety of applications in environmental mapping and monitoring, natural resources management, urban and regional planning, and global change research. Weekly assignments will be provided to develop skills in interpreting different types of images. A term project will be required to make use of remotely sensed data and digital image processing capabilities in one particular area of application.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 630 - Geostatistics and Spatial Analytical Concepts (3)

Emerging fields of geostatistics and spatial analysis, applying quantitative techniques to real-world geographic problems. Exploratory spatial data analysis (ESDA) within multiple GIS packages such as ArcGIS and GeoDa. Traditional statistics as well as geo-statistics within various packages including SPSS, GWRIII, GeoDa, ArcGIS, [R], and Excel.

Prerequisite: GEP 504 or Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 631 - Advanced Remote Sensing (4)

Advanced processing and analysis of satellite remote sensing imagery with an emphasis on change detection, advanced image classification methods, and the integrated use of remote sensing and Geographic Information Systems (GIS) in geographical analysis. The course combines lectures with weekly laboratory exercises designed to apply the concepts from the lectures and develop students' expertise with remote sensing processing software.
Prerequisite: GEP 621 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 632 - Environmental Health and Geographic Information Sciences (GISc) (3)

Exploration of the field of environmental health, with special emphasis on spatial factors, medical geography, and the use of Geographic Information Science (GISc)to analyze relevant relationships between environmental impacts, diseases, demographics, socio-economic conditions, and the implications on public health and policy. Lab work uses GISc to examine and analyze environmental health, population, and natural and built environmental data for planning and research.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 635 - Natural Hazards and Risk Analysis with GIS

 (4)Fundamentals of the natural hazards and disasters origin; physical and social implications; methods of quantitative and qualitative analysis; elements of geographic, geological, social and political analysis applied to risk estimation and mitigation and management measures. Use of Geographic Information Systems (GIS) tools and analytical techniques in lab exercises and assignments.

Prerequisite: GEP 504 or GEP 505. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 640 - Urban Geography and Geographic Information Science (GISc) (3)

This course covers the contribution of geographical concepts and methods to an understanding of contemporary and future urban issues. It applies the use of GISc to the study of the internal structure of cities and urban systems, including city dynamics, classic and postmodern models, central place theory, urban migration and mobility, race, ethnicity, and gender, urban migration, poverty, industrial and postindustrial urban societies, residential segregation, land use change, gentrification, urban and suburban sprawl, housing, urban environmental issues, and regional planning. Lab work
involves using GISc to explore the form and function of urban areas, and to solve critical urban problems using spatial analysis.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 641 - Digital Image Analysis (4)

Introduction to digital image analysis: Application of digital analysis techniques to remote sensing data including mapping of land cover, land use, vegetation, geology, soil, built-up area, agricultural land and forest. Digital image analysis techniques will include image processing, transformation, registration and classification using industry standard digital image analysis software. Advantages and limitations of digital image analysis techniques will be discussed.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 645 - Water Resources, Hydrology, and GISc Analysis (4)

Principles of hydrology and water resources; analysis of hydrologic data using open-source and commercial Geographic Information Systems (GIS). Statistical and spatial analysis, mapping of critical hydrologic conditions, coupling GIS with hydrologic data analysis and modeling.

Prerequisite: GEP 504 or GEP 505 Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## GEP 650 - Topics in Regional Geography and Applied Analysis (3)

This field-based course will teach students basics of field data investigation and analysis using Geographic Information Systems (GIS) and Global Positioning System (GPS) within the context of the local (regional) geographic settings. Students will select the topic of regional investigation and use both, literature and local (regional) resources to conduct their own applied geographic study. Use of GIS for mapping and data entry will provide students with necessary skills for practical work with collected terrain data and satellite imagery. Labs will use field data and datasets from NASA, USGS, NOAA and local sources (universities, data portals, etc.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEP 660 - Geovisualization and Analytical Cartography (4)

Creating maps using advanced Geographic Information Science (GISc) techniques with a focus on understanding cartographic conventions and principles of good cartographic design, and analysis of complex spatial data through geovisualization methods. Maps will be studied critically in
terms of their creation, interpretation, and relationship to space and place.
Prerequisite: GEP 504, or GEP 505, or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 662 - Introduction to Programming for GISc (3)

Programming and scripting for Geographic Information Science (GISc) with a focus on applying programming methods to answer geographic questions. Students will learn how to use programming to automate geoprocessing tasks and develop new analytical tools.
Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 664 - Spatial Database Management (3)

Spatial Database Management with a focus on managing spatial data within a relational database in a Geographic Information System. Topics include relational database concepts; Structured Query Language (SQL); spatial database creation and management; database security management; data integrity maintenance; database model spatial relationships; and work within a multiuser editing environment.

Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 670 - Seminar and Internship Program in Geography

 (4)Current issues in Geographic Information Science (GISc), with weekly work as an intern in one of various governmental, non-profit, academic, or consulting organizations. Minimum 150 hours of GISc-related project work. This course may be repeated for a total of 8 credits.

Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 675 - Data Acquisition and Integration Methods for GIS Analysis (3)

The techniques and science behind field methods commonly used for the acquisition and creation of geo-spatial data.
Various techniques for data capture as well as processing and analyzing the data within a geographic information system (GIS). Labs will focus on the hardware and software needed for data creation, the integration of this information into a coherent GIS, and basic concepts of analysis including pointpattern analysis. Students will use GPS devices, mobile GIS, workstation GIS, as well as data from other sources including satellite and airborne remotely sensed data.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 680 - Emerging Issues and Methods in Geographic Information Science (3)

Current and innovative issues, technologies, and methods in the field of Geographic Information Science. Topics change from term to term, and might include ethics in GISc; critical cartography; and new technologies for analysis.

Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 689 - Methods Seminar in Geographic Information Science (GISc) (3)

Current methods in the field of Geographic Information Science. The nature of scientific research, defining geographic problems, issues of scale and resolution, research design, scientific literature review, acquisition of relevant data, capturing information and mapping in GIS, analysis and interpretation of data, presenting scientific findings in written and oral formats.

Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
GEP 690 - Workshop in Geographic Information Science (GISc) Research (3-4)
(Course may be repeated for a total of 8 credits). An advanced examination of mapping and of new computer-aided technologies in the natural and social sciences, including research design and methodology and designing and conducting an independent GIS research project, conforming to generally acceptable professional geographical practices and techniques, under the supervision of faculty.
Prerequisite: GEP 605 or Departmental permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 691 - Independent Study in Geography/Geographic Information Science (2-4)

(May be repeated for credit up to 8 credits.) Readings, analysis, and/or an in-depth examination of a topic in geography/geographic information science (GISc).
Prerequisite: GEP 505 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 695 - Thesis Research in GISc (4)

Preparation for Master's degree research and thesis writing in the GISc graduate program. A substantive and meaningful GISc research project is undertaken and a written thesis is prepared, using appropriate research methods in the field of GISc, demonstrating sufficient understanding of the nature of scientific research, the process of defining geographic problems, issues of scale and resolution, formation of research design, scientific literature review, acquisition of relevant data, capturing information and mapping in GIS, analysis and interpretation of data, presenting scientific findings in written
and oral formats. Open only to students matriculated for the M.S. degree in GISc.

Prerequisite: GEP 695 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## GEP 699 - Studies in Geographic Sciences (2-4)

(May be repeated for up to 9 credits.) Advanced, in-depth study and research of a specialized topic in the geographic sciences and related cognate fields that is not covered by existing courses
Prerequisite: Faculty permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HEA - Health

## HEA 502 - Women and Health (3)

Overview of the physiological, psychological, political, and social determinants of the health of women. Emphasis is on the use of contemporary research to understand the issues surrounding women across the lifespan and the role of health educators (Closed to students who have taken HEA 302 or equivalent.)

Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## HEA 507 - Human Sexuality (3)

(Closed to students who have taken HEA 307 or equivalent.) Physiological, psychological, and social aspects of human sexual development and function.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 509 - Drugs and Substance Abuse (3)

(Closed to students who have taken HEA 309 or equivalent.) Emphasis on physiological, psychological, and social effects of drug abuse.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 510 - Health and Aging (3)

Overview of the physiological, psychological, and social aspects of the aging process. Emphasis is on the use of contemporary research to understand the issues surrounding aging and the role of health educators in promoting health and wellness among older adults. (Closed to students who have taken HEA 310 or equivalent.)
Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## HEA 511 - Perspectives on HIV/AIDS (3)

Examination of HIV/AIDS in the United States and the world, including biomedical aspects of HIV/AIDS, history of the epidemic, epidemiology, prevention, treatment, and policy
issues. Emphasis is on the use of contemporary research to understand the issues surrounding HIV/AIDS and the role of health educators particularly in terms of prevention (Closed to students who have taken HEA 211 or equivalent.)

Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## HEA 600 - Biostatistics (3)

Statistical concepts, techniques, and applications of the analysis of health-related data, including the use of computer software to analyze and interpret data.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 601 - Curriculum Development in Health Education (3)

Examination of significant health curriculum trends. Analysis of curriculum-reform movement in health, with emphasis on principles, policies, and procedures for curriculum construction.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 602 - Research Methods in Health Education (3)

Study of the design, methods, and research tools used in health education. Formulation of a research problem.
Prerequisite: Eighteen credits in health education. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 603 - History and Philosophy of Health Education and Promotion (3)

Examination of the philosophical basis of health education and development of the health promotion movement in modern society. Analysis of the scientific, educational, sociological, psychological, anthropological, and legal basis of the profession with respect to its place in the health care system. Review of current professional developments.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 604 - Educational Strategies in Health (3)

Overview of essential present-day knowledge of health practices and concepts. Emphasis on specific strategies for communicating health information and promoting health practices in a community setting.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 609 - Drug Problems in the School and Community

 (3)Planning, developing, and implementing a drug-prevention program in the school and community.

Prerequisite: HEA 509 (or equivalent) or Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 610 - Group Dynamics in Health Education (3)
An introduction to the fundamental processes of group dynamics and analysis of specific group approaches as they relate to the health educator. Focus on group networking, decision-making patterns, and leadership. Exploration of methods and techniques of identifying problems and improving group function.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 620 - Health Counseling (3)

Principles of behavior change and overview of basic counseling skills. Emphasis on helping people with behavior change within school and health settings to promote optimal health.

Prerequisite: 9 graduate credits in health education or 9 undergraduate and/or graduate credits in nutrition.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## HEA 622 - Organization and Administration of Health Education and Promotion Programs (3)

Formulation of principles, policies, and procedures of health education and promotion programs within a variety of institutional settings; coordination with other health services, professional personnel, and cooperating agencies.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 623 - Program Planning and Evaluation in Health Education (3)

Identification and analysis of health education and promotion program planning, implementation, and evaluation in various professional environments. Emphasis on the development of model programs.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## HEA 624 - Safety Education in Secondary Schools and

 Colleges (3)History and development of safety education. Analysis of safety factors related to home, school, transportation, and recreation facilities; curriculum material; methods; and organizational procedures. NOTE: Students (in consultation with the instructor) will be expected to embark on a safety project within their own school situation and to set the framework of its solution.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 625 - Seminar in Human Sexuality (3)

Analysis of current trends, problems, and issues.
Prerequisite: One course in human sexuality or sex education, or Departmental permission. Cross-Listed as: LEH HEA 625 /FCS 674. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 626 - Mental Health and the Classroom Teacher (3)
The scope of the mental health problem; implications for the classroom teacher. Methods of improvement and preservation of the well-being of individuals.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## HEA 627 - Health Problems and Issues in Contemporary

 Society (3)Identification and analysis of various community health problems and issues in contemporary society. Exploration of the impact on the individual, family, and society.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 630 - Community Organization and Health

 Education (3)Current approaches in community development and the community-organization process are related to the development and promotion of public health and health education. Emphasis on coordinated community action.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 633 - Seminar in Urban Health Problems (3)
Health in the urban setting, including special problems or susceptibility in ethnic groups, innovative health education programs, and disease prevention.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 634 - Modern Advances in Health Science (3)
Problems and current research in health education and community health education.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 635 - Seminar in Disease Prevention and Control (3)

Examination and analysis of the major causes of morbidity and mortality in modern society. Review of epidemiological principles. Analysis of disease causation, with an emphasis on the role of education in disease prevention and control.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 636 - Perspectives on Death and Dying (3)

Study of death, dying, and bereavement from psychological, social, and cultural perspectives. Topics including end of life care, the effects of different types of death on the grief process, children and bereavement, and grief counseling. Implications for health services delivery. (Closed to students who have taken an undergraduate course in death and dying or equivalent.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 640 - Nutrition and Chronic Diseases (3)

The relationship of diet to health promotion and disease prevention and management. Emphasis on current dietary patterns in the United States and other industrialized nations and the high incidence of degenerative diseases, such as arteriosclerosis, diabetes mellitus, diverticulosis, and cancer. (Closed to students who have taken HSD 240 or equivalent.)
Cross-Listed as: LEH HEA 640/DFN 640. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## HEA 670 - Field Experience in Health Education (3)

Supervised field experience in an agency offering health education/health promotion programs.
Prerequisite: Completion of 15 graduate credits in health education. Subject to departmental permission, students currently employed in the field of health education may take a HEA elective in lieu of HEA 670. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 671 - Teaching Strategies for Health; Psychosocial Wellness (3)

Study of psychosocial wellness incorporating mental, emotional, family and social health. Emphasis will be on using educational strategies to promote psychosocial wellness among students from pre K-12.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 672 - Teaching Strategies for Health: Health Promotion Behaviors (3)

Study of health behaviors and the promotion of healthy lifestyles. Emphasis will be on using educational strategies to promote health among students from pre K-12.
Prerequisite: PREREQ: Open only to MS Ed Health Teacher students or department permission. Requirement Designation: Graduate Non-Liberal Arts.
HEA 673 - Teaching: Strategies for Health: Disease and Disability (3)

Examines the etiology of health problems and risk factors for diseases and disabilities. Emphasis will be on using
educational strategies to identify and reduce risks for various health problems among students from pre K-12.

Prerequisite: Open only to MS Ed Health Teacher students or department permission. Requirement Designation: Graduate Non-Liberal Arts.

## HEA 674 - Environment and Protecting Health (3)

Examines environmental health issues and problems. Emphasis on educational strategies to address environmental health problems.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 675 - Teaching Strategies for Community Health (3)

Teaching strategies aimed at individuals and groups across the life span and in community health settings. Students will explore curricular design theory, instructional strategies, learner characteristics, teaching materials and aids, learning environments, and evaluation methods.

Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## HEA 680 - Special Topics in Health (3)

(May be reelected for credit when the topic changes.) Consideration of recent developments in the field of health, with special emphasis on interdisciplinary contributions.

Prerequisite: Graduate Adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## HEA 685 - Independent Study in Health Education and Promotion (3)

(May be repeated up to 6 credits). Readings in and examination of special topics in health education.

Prerequisite: Open only to matriculated students who have completed 24 credits in the major. Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
HEA 690 - Seminar in Current Research (3)
Research topics are presented for class analysis and discussion.

Prerequisite: HEA 602 plus 12 hours of graduate work in Health Education. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## HEA 691 - Thesis (6)

(Not open to students who have taken the comprehensive exam). Individual research under faculty supervision. Credit granted only upon completion and acceptance of thesis. A grade of INC will be assigned for the first semester.

Prerequisite: HEA 602. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 692 - Thesis (6)

(Not open to students who have taken the comprehensive exam). Individual research under faculty supervision. Credit granted only upon completion and acceptance of thesis. A grade of INC will be assigned for the first semester.
Prerequisite: HEA 602. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

HEA 731 - Sexuality Counseling (3)
An overview of sexuality counseling. Stresses the process of interaction between professionals and clients that allows clients to explore and understand their sexuality, feelings, values, responsibilities, needs, and behaviors. Topics include: changing family structure, alternative lifestyles, changing sex roles, an increasing older population, drug and alcohol abuse, and sexually transmitted diseases, including AIDS.
Prerequisite: Permission of adviser. Cross-Listed as: LEH HEA 731/EDG 731. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## HEA 741 - Strategies in Nutrition Education (3)

Examination of current methods and materials used in nutrition education, including individual counseling and group instruction. Emphasis is on development, use, and evaluation of appropriate teaching strategies and materials. (Includes workshops and fieldwork.)
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## HIA - History of Ancient and Medieval Civilization

## HIA 706 - History of Religions in the Ancient World (3)

(Not open to students who have taken HIA 306.) A survey of religious beliefs and practices of the Ancient Near Eastern and Mediterranean worlds. Religious customs of the ancient Mesopotamian cultures; Mycenaean, Minoan, and Classical Greek myth and ritual; Hellenistic religions and mystery religious cults; private household worship in the Roman Republic; and public religious faith in the Roman Empire.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIA 714 - Classical Myth and Society (3)

(Not open to students who have taken HIA 314.) A comparison of the origins and development of classical mythology and heroic legend as religious beliefs, their relation to other mythologies, and their adaptation in literature and art from Hesiod and Homer through the present. A comparative analysis of Near Eastern and Nordic myth will be provided.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIA 720 - History of Ancient Greece (3)

(Not open to students who have taken HIA 320.) The Ancient Greeks from prehistoric times through the development of the City-State to the death of Alexander the Great. The political, economic, social, and cultural achievement during the Bronze and the Dark Ages, the Archaic and the Classical Period, and the Hellenistic Era.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIA 721 - History of Rome (3)

(Not open to students who have taken HIA 321.) Foundation and development of the Roman state, including the rise and decline of the Roman Republic and the establishment and the fall of the Empire, with emphasis on its political, economic, social, and cultural achievements.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIA 750 - Topics in Ancient and Medieval History (3)
(May be repeated as often as the topic changes.) Various sections in topics in Ancient History. (For specific topics and sections each semester, consult the Department.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE - History of Modern European

HIE 702 - Europe in the Renaissance and Reformation (3)
(Not open to students who have taken HIE 302). Major developments in Western Europe in the sixteenth and seventeenth centuries, including Renaissance humanism, the rise of the printed book, reformations of religion, overseas exploration and empires.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 705-Golden-Age Spain (3)

(Not open to students who have taken HIE 305). Survey of secondary literature of early modern Spanish history, including classic works and recent contributions to the field, with special attention to interdisciplinary approaches.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 707 - Europe in the Age of Enlightenment (3)
(Not open to students who have taken HIE 307). Society, politics, and economy in Europe from 1689 through the Napoleonic Wars.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 708 - The French Revolution and Napoleon (3)
(Not open to students who have taken HIE 308.)
Preconditions of discontent in late eighteenth-century France; the origin and unfolding of the French Revolution; the Thermidorean Reaction; and the rise of Napoleon and his influence in Europe.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 709-Europe, 1815-1914 (3)

(Not open to students who have taken HIE 309.) Political, economic, social, and intellectual ideas and developments from the Congress of Vienna to World War I.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 710 - History of European Diplomacy (3)

(Not open to students who have taken HIE 310.) Survey of European diplomacy, with special emphasis on nineteenthand twentieth-century developments.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 714 - Europe in the Twentieth Century (3)

(Not open to students who have taken HIE 314.) World War I; the rise and fall of communism in Russia and Eastern Europe; fascism; World War II; postwar prosperity; European union; and the impact of immigration.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 716 - Nineteenth-century European Intellectual History (3)
(Not open to students who have taken HIE 316). The social and intellectual formation of liberalism, conservatism, nationalism, socialism, and anarchism, and their impact on political and social change in modern Europe.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 717 - The History of Ideas and Ideologies in Twentieth-Century Europe (3)
(Not open to students who have taken HIE 317). The social movements and ideas that have shaped our modern consciousness, including communism, fascism, existentialism, feminism, revolution, and total war.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 721 - Tudor-Stuart England (3)

(Not open to students who have taken HIE 321.) The advent of the Tudor dynasty, Henry VIII, the divorce, and the church; Queen Elizabeth's government and the church; Elizabethan society; poverty and vagrancy in the Tudor state; the divine right of kings and mass political attitudes in early Stuart England; the origins of the civil war; the execution of Charles I; Oliver Cromwell and the saints; restoration England; and the Glorious Revolution.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 722 - Britain in the Age of Industrialization and Empire (3)

(Not open to students who have taken HIE 322.) Modern Britain in the eighteenth and nineteenth centuries. The impact of the industrial revolution on British society; the American Revolution; democratization; depression, imperialism, and the new liberalism; and the Irish question in British politics.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 723 - Britain in the Twentieth Century (3)

(Not open to students who have taken HIE 323.) World War I and its effects on politics and society; the economic crisis of 1931 and the National Government; depression; Churchill and the war effort; the Labour Party, nationalization, and the welfare state after 1945; decolonization; economy and society under Thatcher; the rise of New Labour.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 725 - Italy from Napoleon through Mussolini (3)
Political, socio-cultural, and economic trends in preunification Italy. The struggle for unification. Italian emigration to the United States and Latin America in the late 19th century. Italy during WWI, WWII and the fascist period. Rising prosperity and demographic challenge in post-war Italy.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 730 - History of Modern France (3)
(Not open to students who have taken HIE 330.) French politics, society, economy, and culture from the fall of Napoleon to the crisis of 1968. The revolutions of the nineteenth century, colonial policy and decolonization, World Wars and recovery after 1950.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 733 - Modern Ireland (3)

(Not open to students who have taken HIE 333.) The political, economic, social, and cultural history of Ireland from the late eighteenth century to the present.
Cross-Listed as: LEH HIS 727/HIE 733. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 735 - History of Spain (3)

Study of Spanish history from the eighteenth century to the present with primary source readings in translation. Topics include the Napoleonic invasion, the Spanish Civil War, the Franco dictatorship, the transition to democracy, and the economic crisis of the twenty-first century.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

HIE 736 - Early Russian History (3)
(Not open to students who have taken HIW 309 or HIE 336.)
Origins of Russian history, Kievan, Muscovite, and early Imperial Russia to 1855.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 737 - Modern Russian History (3)

(Not open to students who have taken HIW 310 or HIE 337.) Russia from 1855 to the present, including the late Imperial and Soviet eras.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIE 741 - Germany from Bismarck through Hitler (3)
(Not open to students who have taken HIE 341.) Study of Germany from Bismarck and the unification through Hitler, the Nazi regime, and the Second World War, with a brief survey of postwar development.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 743 - The Holocaust (3)

(Not open to students who have taken HIE [HCU] 343.) Study of the destruction of Jews of Europe during World War II. Political anti-Semitism in modern Europe; the rise of Hitler and Nazism. The interwar period in Europe and the spread of anti-Semitism. World War II, ghetto, deportation, and liquidation. Problems of rescue and resistance. Selected readings from the literature of the Holocaust.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIE 750 - Topics in European History (3)

(May be repeated as often as the topic changes.) Various sections in topics in European history. (For specific topics and sections each semester, consult the Department.)

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS - History

## HIS 701 - History of Science from Descartes and Newton to Darwin and Einstein (3)

(Not open to students who have taken HIE 301.) This course examines the nature and significance of scientific thinking in the work of Descartes, Leibnitz, and Newton; the conflicts between science and religion in the seventeenth century; materialism's penetration of biology from physics; the revolution in chemistry associated with Priestley and Lavoisier; the interface between science and the industrial revolution; the work of the French biologist Claude Bernard, illustrating the development of biology and experimental medicine; the startling work of Charles Darwin; and twentieth-century topics, such as field and atomic theory, relativity, and quantum theory and their important philosophical implications.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 702 - Science and Society (3)

(Not open to students who have taken HIS 302.) Social aspects of the growth of modern science from the seventeenth century to the present. Religion and science in Galileo's Italy, science and technology during the industrial revolution, scientific institutions during the French Enlightenment, Darwin and Social Darwinism, eugenics and racial hygiene, big science, and the human genome project.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 724 - American Urban Architecture (3)

American Urban Architecture.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 727 - World Revolutions (3)

(Not open to students who have taken HIS 327). The nature, causes, and results of revolutionary change, including the French, the American, the Haitian, the Russian, and the Chinese revolutions, and the depiction of revolutionary change in art, theater, and literature.

Cross-Listed as: LEH HIE 733/HIS 727. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 734 - The Irish Diaspora (3)

(Not open to students who have taken HIS 334.) A survey of the circumstances and consequences of Irish immigration from the eighteenth century to the present, including the patterns of settlement and assimilation of Irish immigrants in
the West Indies, the United States, Canada, England, Scotland, Wales, Australia, New Zealand, and South Africa.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIS 735 - The Rise of Fascism (3)
The Rise of Fascism.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIS 742 - Anti-Semitism from Early Christianity to Hitler (3)
(Not open to students who have taken HIS [HCU] 342.) The origin of conflict between Christianity and Judaism, and the fate of Jews in Medieval Europe. The gradual liberation and assimilation of the Jews of Western Europe, 1789-1870. The rise of modern racism and anti-Semitism in Europe, 18891939. Hitler, the Nazis, and the destruction of European Jewry during World War II. Anti-Semitism in the contemporary world. Social-psychological and cultural theories of antiSemitism will be considered.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIS 745 - Science in the Twentieth Century (3)
(Not open to students who have taken HIS 304.) A multidisciplinary survey of scientific and technological development in the twentieth century, emphasizing the ethical issues and social implications arising from them.
Cross-Listed as: LEH HIS 745/HIU 715. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIS 750 - Topics in Comparative History (3)
(May be repeated as often as the topic changes.) Various sections in topics in comparative history. (For specific topics and sections each semester, consult the Department.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 764 - Topics in Medieval History. (3)

Topics in Medieval History.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIS 780 - Seminar in History (3)
Research in selected topics and historical problems.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

HIS 781 - Advanced Tutorial Project in History (3)
Advanced individual reading and research paper on a specific topic in history, under faculty direction.

Prerequisite: HIS 780 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 795 - Independent Reading (3)

(May be repeated with permission of the chair.) Reading on special topics chosen in consultation with a member of the Department.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 796 - Capstone Project (3)

Students research and produce a capstone project under the supervision of faculty. Possible projects may include but are not limited to a research paper, a literature review, an annotated critical bibliography, or the development of a website.
Prerequisite: HIS 780 and HIS 781 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIS 797 - Master's Thesis Preparation (6)

(Open only to students matriculated for the M.A. degree. Six credits may be offered toward the M.A. degree.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU - History of the United States

## HIU 534 - U.S. History and Historiography (3)

Important themes in U.S. history from the Colonial period to the present, with a focus on the content and critical thinking needed to teach this topic at the middle and high school level.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 701 - Colonial British America, 1586-1763 (3)
(Not open to students who have taken HIU 301.) The British colonies in North America from the lost English settlement at Roanoke to the treaty ending the French and Indian War. The collision of Europeans and Native Americans, conflicts between the European colonial powers, the establishment of slavery in North America, and political, social, and religious development.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 704 - The Era of the American Revolution, 1763-1789 (3)
(Not open to students who have taken HIU 304.) American development from the mid-eighteenth century through the framing of the Constitution, with emphasis upon the American Revolution, the interrelation of European and American affairs, and the growth of American institutions and ideals.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 705 - The Early Republic, 1789-1824 (3)
(Not open to students who have taken HIU 305.) The founding and development of a republican form of government: the evolution of political parties, the economic growth of the nation and its impact on politics, and the transition from a republic to a democracy engendered by economic growth and the search for political power.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 708 - Democracy, Sectionalism, and Slavery in the U.S., 1810-1825 (3)

(Not open to students who have taken HIU 308.) The age of the common man in politics, increasing sectional tensions, and the prominence of the slavery issue in American life.
Abolitionism, workingmen's agitation, women's rights, westward expansion, states' rights, the defense of slavery, and the coming of the Civil War.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

HIU 709 - The Civil War and Reconstruction, 1861-1877 (3)
(Not open to students who have taken HIU 309.) Key events of the Civil War and its aftermath, including emancipation and the status and role of newly freed Black Americans.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 710 - The Gilded Age and the Progressive Era, 18771914 (3)
(Not open to students who have taken HIU 310.) Industrialization and the rise of the corporation, the importance of the transcontinental railroads, immigration, urbanization, black disenfranchisement, Jim Crow and the emergence of the New South, populism, the integration of the Far West, Progressivism, and trust busting.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 714 - The United States, 1914-1945 (3)
(Not open to students who have taken HIU 314.) Domestic and foreign affairs, including the two World Wars, the Roaring Twenties, the Great Depression, and Franklin Roosevelt and the New Deal.
Prerequisite: HIU 314 Anti-Requisite Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 715 - Recent United States History, 1945 to the Present (3)

(Not open to students who have taken HIU 315.) Domestic and foreign affairs since the end of World War II. The Cold War and anti-Communism at home and abroad, and changes in American social, economic, and political values and institutions.

Cross-Listed as: LEH HIS 745/HIU 715. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 716 - The American Constitution in Historical Perspective (3)

(Not open to students who have taken HIU 316.) The American constitutional system from the American Revolution to the present. The evolution of legal structures, the growth of rights and remedies, the changing content of justice, organization of government, the balance of freedom and order.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 717 - History of American Foreign Relations, 17501912 (3)
(Not open to students who have taken HIU 317.) A history of American foreign relations from colonial times to the early twentieth century, with emphasis on the diplomacy of the American Revolution; foreign affairs and the Constitution; the War of 1812; the Monroe Doctrine; expansion, sectionalism, and the coming of the Civil War; and America's emergence as a world power.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 718 - History of American Foreign Relations, 1912Present (3)
(Not open to students who have taken HIU 318.) American foreign relations from the early twentieth century to the present. The U.S. role in World Wars I and II; the Cold War; and the growth of presidential power in foreign affairs.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

HIU 719 - The United States and the Vietnam War (3)
(Not open to students who have taken HIU 319.) The reasons why the United States became involved in the Vietnam War, the methods employed, and the consequences of U.S. involvement.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 720 - Early American Cultural and Intellectual History (3)

(Not open to students who have taken HIU 320.) The major ideas, institutions, and individuals in American cultural and intellectual life from the mid-seventeenth through the latenineteenth centuries. Puritanism; the Enlightenment in America; republicanism and romanticism; and the professionalization of letters and learning.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 729 - History of Sexuality and Sex Roles in America (3)
(Not open to students who have taken HIU 329.) The social history of sexual roles as they have developed and changed in America from colonial times to the present.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 731 - History of Women in America (3)
(Not open to students who have taken HIU 331.) Historical study of women's conditions, statuses, and roles in American society from colonial times to the present.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 732 - History of Health Care in the United States (3)

(Not open to students who have taken HIU 332.) Examination of health care in America from colonial times to the present. Topics include the development of the medical profession, the rise of the public health movement, the growth of hospitals, and popular attitudes toward health and disease.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 733 - American Urban History (3)

(Not open to students who have taken HIU 333.) The formation, growth, and transformation of American cities from the wilderness village to the megalopolis. Emphasis on the changing political and economic roles of cities, patterns of social stratification, power, and mobility; and trends in recent urban social and cultural life.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 735 - Immigration in America (3)

(Not open to students who have taken HIU 335.) The motives and aspirations of immigrants, their contributions to the effects on American social structure, and the tensions between assimilation and ethnicity.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 736 - American Religious History (3)

(Not open to students who have taken HIU 336.) Religious belief and behaviors of Americans from the seventeenth century to the present. Encounters among European, African, and indigenous religions; Christianization, evangelicalism, and revivalism; church and state relations; and religiously based movements for social reform.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 738 - The Family in American History (3)

(Not open to students who have taken HIU 328.) Historical study of the family in America, including its European roots and its relationship to the frontier, slavery, immigration, and current developments in industrialism, urbanization, and technology.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 740 - History of African American Women (3)

Analysis of the social, political, and cultural history of African American women in US society from an interdisciplinary perspective. Through lectures, discussions, films and other collaborative activities, students will develop the ability to analyze the complex ways that race, class and gender have shaped African American women's lives and the strategies they have used to empower themselves and their communities.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 741 - American Business History (3)

(Not open to students who have taken HIU 341.) The rise of business enterprise in America from its earliest commercial origins to giant corporations and conglomerates. Themes include the rise of early commerce; emergence of consolidated industry; prominent businessmen and business techniques; analysis of business philosophy and entrepreneurial attitudes; reactions to corporate power by labor and government; evolution of business forms and structures; and the impact of business enterprise on the political, legal, and cultural development of America.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 742 - History of American Labor (3)

(Not open to students who have taken HIU 342.) The American worker from colonial times to the present, with emphasis on the period since the Civil War. Themes include the origins and character of the American labor movement; the impact of industrialization on the worker; slavery and wage labor; the growth and development of the major American labor unions; the impact of social reformers and radicals on the labor movements and the American worker;
public employees and collective bargaining; and the changing attitudes of the American worker.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 745 - American Economic History (3)
(Not open to students who have taken HIU 345.) Studies in American economic development from the agricultural and commercial economy of the colonies to contemporary U.S. preeminence as an industrial nation. Attention will be given to the economic institution and policy with regard to political and social developments.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 746 - History of the American Presidency (3)
(Not open to students who have taken HIU 346.) America's presidents and how the presidency has developed from George Washington to the present.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

HIU 747 - The Mainland Borough: The Bronx as a City in History (3)
(Not open to students who have taken HIU 347.) The urban history of the Bronx from the seventeenth century to the present. Major emphasis on 1874-1945, the period of the borough's most rapid growth and experience with modern urban problems. Topics include ethnic in-migration and mobility; the effects of mass-transit development; Prohibition; and the ways various external events, such as wars and depression, have influenced the borough and its people.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIU 748 - History of New York: City and State (3)
(Not open to students who have taken HIU 348.) Examination of the interaction between the urban center and the State from their respective origins as New Amsterdam and New Netherland to the twentieth century. Special emphasis is placed on the socioeconomic reasons for the cosmopolitan nature of the metropolis and its uniqueness as a major urban entity.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIU 750 - Topics in American History (3)

(May be repeated as often as the topic changes.) Various sections in topics in American history. (For specific topics and sections each semester, consult the Department.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW - Asian, African, and Latin-American History

## HIW 533 - World History and Historiography (3)

Important themes in world history, with a focus on the content and critical thinking needed to teach this topic at the middle and high school level.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 701 - Ottoman History (3)

(Not open to students who have taken HIW 301.) Political, socio-economic, and cultural history of the Ottoman Empire from its fourteenth-century beginnings to its demise at the end of World War I.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 702 - Modern Middle Eastern History (3)

(Not open to students who have taken HIW 302.) Societies and politics of the Middle East in the nineteenth and twentieth centuries. The Islamic and Ottoman legacies, reforms and reforming elites, changing roles of religion, nationalist ideologies, Great Power intervention, regional politics, and the Arab-Israeli conflict.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 703 - Contemporary Islamic Movements (3)

(Not open to students who have taken HIW 303.)
Contemporary movements of Islamic resurgence and activism in the Middle East, North Africa, Central and South Asia, and beyond.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 705 - The Arab-Israeli Conflict (3)

(Not open to students who have taken HIW 305.) The ArabIsraeli conflict from the late nineteenth century to the present; political, military, diplomatic, economic, cultural, and psychological dimensions.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 716 - East Asia in the Modern World (3)

(Not open to students who have taken HIW 316). The making of modern East Asia from the Manchu invasions of the 17th century to the present-day rise of China, Japan and Korea as military, economic, and cultural powers.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 717 - History of Modern China (3)

Chinese history from 1800 to present, concentrating on transformations of the Chinese economy, relations with the rest of the world, and changing views of reform and revolution in the modern era.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 722 - History of Chinese Civilization (3)

A cultural history of China, focusing on different ways different people have attempted to characterize Chinese civilization. Focus on religion, labor, foreign relations, and daily life from the advent of writing to the present.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 723 - History of Africa to 1800 (3)

(Not open to students who have taken HIW 323.) Survey of African history from the earliest times to 1800 . Beginning with the development of early human societies, the course will cover environmental, social, economic, political, and religious transformations before 1800 .

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 725 - History of Modern Japan (3)

The emergence of Japan as a world power, focusing on its relationship with the United States. Topics include samurai and warfare, Shinto, the fragility of democracy, World War II, the U.S. occupation of Japan, Japan's role in Asia, and Japanese perspectives on globalization.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 726 - History of Africa to 1800 (3)

(Not open to students who have taken HIW 323.) Survey of African history from the earliest times to 1800. Beginning with the development of early human societies, the course will cover environmental, social, economic, political, and religious transformations before 1800 .

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 727 - History of Africa 1800 to the Present (3)

(Not open to students who have taken HIW 327.) Survey of African history from 1800 to the present. Beginning with large-scale internal transformations in the nineteenth century, the course will address social, economic, political, and religious transformations on the continent since 1800.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 730 - Nineteenth-Century Latin American History

 (3)Not open to students who have taken HIW 330.) Examination of the broad changes and continuities in Latin America over the course of the "long nineteenth century," from political independence in the 1820s to the rise of nationalist challenges to liberalism in the 1930s.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 731 - Modern Latin America (3)

(Not open to students who have taken HIW 331.) Examination of the nations of Latin America from the beginning of the twentieth century to the present, with a focus on political reform and revolution, economic development, and social movements.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
HIW 737 - Latin America and the United States from 1823 to the present (3)
(Not open to students who have taken HIW 337 or LAC 337.) Relations between the United States and Latin American countries since their creation as independent republics.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 738 - Colonial Latin America (3)

(Not open to students who have taken HIW 330 or HIW 338.) Examination of the construction and development of colonial societies in Latin America from the encounters of the sixteenth century to the crisis of the Iberian empires in the late eighteenth century.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 745 - History of South America (3)

Examination of the pre-Columbian and colonial foundations of the nation-state and the construction of modern nations in South America in the post-independence period. Special emphasis on the challenge of creating viable political systems in the context of geopolitical pressures and local complexities.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 748 - Europe and the Non-Western World in the Nineteenth and Twentieth Centuries (3)

(Not open to students who have taken HIW 348.) Imperialism and colonialism in Africa and Asia, the growth of nationalism, decolonization, revolution, independence, and globalization.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HIW 750 - Topics in Non-Western History (3)

(May be repeated as often as the topic changes.) Various sections in topics in non-Western history. (For specific topics and sections each semester, consult the Department.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## HSD - Health Sciences Core Courses

## HSD 606 - Epidemiology (3)

Epidemiological principles and concepts are examined with respect to their application in measuring the distribution and determinants of disease. Research designs in experimental and observational epidemiologic studies aimed at identifying risk factors and disease etiology are evaluated and critiqued as well as the validity and reliability of screening programs.

Prerequisite: HEA 600 or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
HSD 608 - Legal and Ethical Issues in Health Care (3)
Identification and examination of legal issues related to providers and consumers of health care. Health issues are examined in light of legal doctrines within health care environments.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## IRI - Irish

## IRI 701 - Special Topics in Old Irish (3)

In-depth study of various topics in Old Irish. (For specific topics and sections each semester, consult the Department.)

Requirement Designation: Graduate Liberal Arts.

## IRI 781 - Independent Study (3)

Independent study in Irish language under the guidance of a faculty adviser. (May be repeated for credit with change of topic.)
Requirement Designation: Graduate Liberal Arts.

## ITA - Italian

## ITA 712 - Dante's Vita Nuova and Inferno (3)

Study of Dante's lyrical and mystical period; the Inferno as seen against the historico-political, social, and intellectual background of medieval Florence.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ITA 713 - The Purgatorio (3)

Intensive study of the Purgatorio background, symbols, poetical significance, and place in the development of Dante's art.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 714 - The Paradiso (3)
Dante's final ascent to the "Source of All Being"; theology and beauty; the contents, episodes, and lyrical and mystical consummation of the comedy's Third Cantica.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ITA 715 - The Poetry and Humanism of Petrarch (3)

"Canzoniere", "Trionfi", the "Secretum", "De Viris Illustribus", and the "Correspondence."
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 716 - Boccaccio and the Italian Novella (3)
Study of the genre and its development (novellino, Boccaccio, Sacchetti, Da Porto, Bandello, and Giraldi Cinthio through the contemporaries Soldati, Calvino, Moravia, Buzzati, and others).
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 720 - Italian Literature of the Fifteenth Century (3)
The development of humanism: Valla, Alberti, Pico della Mirandola, Ficino, and others. Also the poets Lorenzo il Magnifico and Poliziano.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 721 - The Renaissance (3)
The Reformation. The moralists Bembo, Castiglione (Cortegiano), Guicciardini (Ricordi Politici e Civili), and Della Casa (Galateo). The chivalric poem (Ariosto's Orlando Furioso); Aretino.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 722 - Machiavelli: Historian, Epistolographer, Playwright, and Political Thinker (3)
Study of the Istorie Fiorentine, the Correspondence, Mandragola, Il Principe, and the Discorsi.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ITA 723 - Italian Literature of the Seventeenth and Eighteenth Centuries (3)

Study of the works of Bruno, Campanella, Marino, Galileo, Vico, and Parini.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 724 - The Italian Epic and Chivalric Poetry (3)
Evolution of the genre. Epic theories of the Renaissance (Castelvetro, Scaligero, Mazzoni, Tasso, and Trissino). Tasso's Gerusalemme Liberata.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ITA 741 - The Commedia dell'Arte and the Theatre in the Seventeenth and Eighteenth Centuries. (3)
The Commedia dell'Arte and the Theatre in the Seventeenth and Eighteenth Centuries.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 752 - The Novel in the Nineteenth Century (3)
The "Romanzo storico, psicologico, nazionalista e verista." Manzoni, the Romantics, and Verga.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 753 - Romantic and Post-Romantic Literary Currents (3)

Poetic trends and literary criticism through the works of Foscolo, Manzoni, Leopardi, and Carducci.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 754 - Modern Italian Poetry (3)
Critical analysis of the poetry of Pascoli and D'Annunzio. Experimentation and achievement of the twentieth century (Saba, Ungaretti, Montale, and Quasimodo).
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
ITA 761 - Italian Philosophy and Literary Criticism since 1870 (3)

De Sanctis, Settembrini, Croce, Gentile, Serra, Barbi, Momigliano, L. Russo, and Flora.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

ITA 762 - The Italian Novel from 1920 to the Present (3)
The "Vociani," "Futuristi," and "Rondisti" (Palazzeschi, Bacchelli, and Buzzati). The "Solariani" and the "NeoRealisti" (Gadda, Pratolini, Vittorini, and Pavese).

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## ITA 763 - The Modern Italian Theatre (3)

The outstanding playwrights of the twentieth century from D'Annunzio and Pirandello to Niccodemi, Betti, and Fabbri.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT - Mathematics

MAT 582 - Statistics for Students in Biological, Health,
and Social Sciences (4)
(Open to all graduate students except those in the education or M.A. programs in graduate mathematics.) Topics in statistics, with emphasis on needs of students in fields other than mathematics. The topics will include methods of central tendency and variability, probability theory, sampling, normal distribution, and large sample theory, t-test and small sample theory, chisquare test, correlation and regression, analysis of variance, and nonparametric methods. Statistical analysis using a computer package.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring-Summer.

## MAT 601 - Secondary School Mathematics from an Advanced Standpoint (3)

This course will cover topics chosen from the theory of arithmetic, logic, probability, and geometry that are of particular interest to teachers of secondary school mathematics.

Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 602 - Introduction to Number Theory and Modern Algebra I (3)
Topics from number theory that have special relevance to the intermediate school program will be considered. These include prime numbers, unique factorization, congruences, Diophantine equations, and Fermat's theorem. Abstract algebra, including equivalence relations and some group theory, will be interwoven in the development, but the primary emphasis is on the number systems that could be considered in the intermediate schools.
Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 603 - Introduction to Number Theory and Modern Algebra II (3)
Further study of the topics in MAT 602. Also, rational numbers, rings, integral domains, fields, ordered fields.

Prerequisite: MAT 602. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 604 - Application of the Real and Complex Number Systems (3)

A study of irrational numbers, the algebraic properties of the complex numbers and polynomials over the integers, rationals, and reals through a concrete, nonabstract approach. Applications in the theory of equations and inequalities.
Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 613 - Theory of Numbers (4)

Euclid's algorithm and the fundamental theorems on divisibility; prime numbers and congruences; the theorems of Fermat, Euler, and Wilson; quadratic residues and reciprocity law, algebraic numbers, Pythagorian triples, other diophantine equations, Fermat's Last Theorem, Pell's equation and continued fractions, the distribution of prime numbers, and advanced topics.
Prerequisite: Three semesters of calculus or a course in Modern Algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 615-Modern Algebra (4)

Mathematical induction. Introduction to group theory with examples-permutation groups, general linear group.
Homomorphisms, subgroups, and congruences. Introduction to theory of rings and fields. Applications to number systems and number theory.

Prerequisite: A course in Linear Algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 616 - Algebra (4)
Group theory, including finitely generated Abelian groups, Sylow's theorem(s), simple groups, solvable groups. Ring theory, including integral domains, Euclidean rings. Field theory, including finite field extensions, Galois theory.
Prerequisite: One course in modern algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 630 - Advanced Euclidean Geometry (4)

Elementary Geometry from an advanced standpoint. Euclidean Geometry topics through the modern era. Solid Euclidean geometry, conics, and a modern perspective.
Prerequisite: A course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 631 - Views of Geometry (3)
Euclidean and solid geometry from multiple viewpoints including the classical system of postulates and axioms as well as a more modern transformation perspective applying advanced techniques from analytic geometry, linear algebra and coordinate geometry.

Prerequisite: Three semesters of Calculus and a course in Linear Algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 634 - Transformation Geometry (4)
Geometry as the study of properties deduced from a set of axioms. Brief introduction to non-Euclidean geometries, synthetic projective geometry. Geometry as the study of invariants of a transformation group: analytic projective geometry and its sub-geometries. Methods from complex analysis, including linear fractional transformations and the Riemann sphere.
Prerequisite: Elements of linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 636 - Non-Euclidean Geometries (4)
Hyperbolic and elliptic geometry, with some trigonometry and calculus; circular models of the hyperbolic and elliptic planes; surfaces of constant curvature; and historical background of attempts to prove Euclid's parallel postulate. Spherical Geometry and Great Circles.

Prerequisite: A course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 637 - Topics in Discrete Mathematics (4)

Topics chosen from probability, combinatorics, decision making, game theory, graph theory, recurrence relations, linear programming, statistical inference. Problem solving using mathematical modeling.

Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 640 - Topology and Analysis I (3)

(May not be taken for credit by noneducation students.) Basic topics in continuity, compactness, and connectedness. Applications to simply stated but not trivial topological problems related to the geometry of mappings of segments, curves, circles, and disks.

Prerequisite: One semester of advanced calculus or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 641 - Topology and Analysis II (4)

Continuation of the study of continuity, compactness, and connectedness with applications to n-dimensional Euclidean space.
Prerequisite: MAT 640. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 655 - Exploring Mathematics Using Technology (2)

Use of tools of technology (such as Computer Algebra systems and graphing calculators) to explore ideas, concepts, and techniques in various areas of mathematics, such as calculus and probability.

Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 661 - History of Mathematics (4)
Historical development of mathematics through the calculus. The mathematics of Babylonian, Egyptian, Hindu, Greek, Arabic, Inca, and Chinese civilizations; some modern developments; contributions of diverse cultures; applications to secondary school teaching.

Prerequisite: A course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 670 - Foundations of Mathematics (3)

Sets, logic, nature of mathematical proof, and number systems.

Prerequisite: Three semesters of calculus or a course in modern algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 681 - Probability (4)
Probability models, combinatorial problems, random variables, expectation and variance, binomial, normal and Poisson variables, law of large numbers, central-limit theorem, markov chains, and selected additional topics.

Prerequisite: Two semesters of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 711 - Topics in Algebra (4)

Topics chosen from semigroups with operators, homomorphisms, ring and field extensions, modules and ideals, right and left vector spaces over division rings, linear transformations, and rings of linear transformations, Galois theory, matrix groups, nilpotent groups, centers, exponential maps, Lie algebras.
Prerequisite: One course each in linear and modern algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 715 - Advanced Linear Algebra (4)

Vector spaces, linear transformations, bilinear quadratic forms, tensors, forms and wedge products, finite and infinite dimensional linear algebra, eigenvalues, eigenvectors, introduction to Hilbert Spaces and eigenfunctions, all studied from an abstract, proof-oriented approach.
Prerequisite: One course in linear algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 719 - Special Topics in Algebra (3)

(May be reelected for credit as often as the topic changes.) Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 733 - Differential Geometry (4)

Curves in E3, curvature, torsion, fundamental existence theorem for space curves, geometry of a surface, inverse and implicit function theorems, Gauss curvature, and Minimal Surfaces.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 734-Calculus on Manifolds (4)

Inverse and Implicit Function Theorems, Manifolds, Differential Forms, Fubini's Theorem, Partition of Unity, Integration on Chains, Stokes' and Green's Theorems, and an introduction to Riemannian geometry.
Prerequisite: One course each in linear algebra and advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 739 - Special Topics in Geometry (3)
(May be reelected for credit as often as the topic changes.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 741 - Topology (4)

Sets, functions, metric spaces, topological spaces, neighborhoods, continuity, homeomorphisms, connectedness, compactness, homotopy, fundamental group, universal covers, Invariance of Domain Theorem.

Prerequisite: One course each in modern algebra and advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 742-General Topology (3)
Topological spaces, continuous functions, separation, properties, induced topological structures, compactness, and metrization.

Prerequisite: MAT 741 or equivalent. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 743 - Algebraic Topology (3)

Homology theory, complexes, and homotopy. Fixed-point theorems.

Prerequisite: MAT 741 (Topology) or equivalent, plus one course in modern algebra. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 751 - Theory of Functions of a Real Variable (4)
Real number system, metric and Banach spaces; applications; the Lebesgue integral; measurable sets and functions; Lp spaces and Hilbert spaces; measure spaces and Daniell integral; Riemann-Stieltjes integral; Radon-Nikodym theorem; and Stone-Weierstrass theorem.

Prerequisite: A one-semester course in advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 753 - Theory of Functions of a Complex Variable I

 (4)Algebra and geometry of complex numbers, analytic functions, Taylor and Laurent Series, Abel's Limit Theorem, meromorphic functions, residue calculus, Cauchy integral theorem and applications, classification of functions by singularities, analytic continuation, linear transformations, the cross ratio, conformal mapping, the Riemann Sphere.
Prerequisite: One semester of advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 754 - Theory of Functions of a Complex Variable II (3)

Selected topics in the theory of functions of a complex variable.
Prerequisite: One first course in complex variables.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 755-Ordinary Differential Equations (4)

First Order, Second Order, and Higher Order Linear Equations, Series Solutions, the Laplace Transform, Systems of First Order Linear Equations, Numerical Methods, Nonlinear Differential Equations and Stability, Existence and Uniqueness Theorems.
Prerequisite: One course each in linear algebra and advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 756-Partial Differential Equations (4)

First order equations and characteristics, Laplace's Equation, Green's functions, Heat Equation and Fundamental Solutions, Wave Equation and Domains of Dependence and Influence, Wave Propogation, Elliptic, Hyperbolic, and Parabolic Equations, Maximum Principal, Existence and Uniqueness.
Prerequisite: One course each in linear algebra and advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 759 - Special Topics in Analysis (3)

(May be reelected for credit as often as the topic changes.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 771 - Mathematical Logic I (4)

Development of the propositional calculus and the predicate calculus, with special emphasis on their mathematical aspects and applications. Semantics, axiom systems, and tableau systems will be presented, and Godel's completeness theorem will be proven. Further topics will be selected from computer
implementation, model theory, and
incompleteness/undecidability.
Prerequisite: One course in either modern algebra or set theory. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 772 - Mathematical Logic II (3)

Advanced topics in computability, first order theories, higherorder logics, semantics, model theory, set theory, analytic methods in proof theory, Gentzen systems, and cut elimination.

Prerequisite: MAT 771 Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 775 - Set Theory (4)

Axiomatic approach to the theory of sets. Relations, functions, the axiom of choice, ordinal numbers, well-ordering, Zorn's lemma, cardinal numbers and transfinite arithmetic, transfinite induction.

Prerequisite: Any two courses chosen from linear algebra, modern algebra, or advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 782 - Mathematical Statistics (4)

Fundamental concepts of statistics. Point estimation, maximum likelihood estimators, hypothesis testing, confidence regions, t-test, analysis of variance, nonparametric tests, chi-square goodness-of-fit tests, correlation, regression analysis, and selected additional topics.
Prerequisite: A course in probability. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 785 - Introduction to Applied Mathematics (3)
Sets of orthogonal functions; Bessel's inequality, Parseval's theorem; Fourier series, convergence criteria; the Fourier integral; Laplace's equation, Bessel functions, Legendre functions, spherical harmonics; and calculus of variations.
Prerequisite: One course in advanced calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 786 - Computer Applications to Mathematics and Science I (3)
Rapid introduction to high-level language, such as Fortran or PL/1. Use of scientific packages discussed. Projects on the College computer of a moderately advanced nature in scientific and mathematical fields will be tailored for the students. Some efficient techniques for these projects taught.
Prerequisite: Three courses in calculus or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 787 - Computer Applications to Mathematics and Science II (3)

Study of areas where time and storage limitations are imposed on the programmer. Uses of trees and heaps in sorting, and data organization discussed. Off-line and on-line algorithms compared and investigated as to time versus space considerations. Optimization of mathematical calculations and methods, such as graph theory, fast arithmetic, and matrix manipulation presented. Students of the class shall determine more specific topics on the College computer.

Prerequisite: MAT 786 or instructor's permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 789 - Special Topics in Applied Mathematics (3)

(May be reelected for credit as often as the topic changes.)
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MAT 792 - Seminar (3)
(To be taken in the final semester of the M.A. program.) Designed to give candidates for the M.A. an introduction to the methods and literature of mathematical research.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 793 - Independent Study (1)

(May be reelected for credit with the Graduate Adviser's permission.) Planned program of individual study of various topics in mathematics, under the guidance and supervision of a member of the Department.

Prerequisite: Graduate Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 794 - Independent Study (1)

(May be reelected for credit with the Graduate Adviser's permission.) Planned program of individual study of topics in mathematics, under the guidance and supervision of a member of the Department.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 795 - Independent Study (2)

(May be reelected for credit with Graduate Adviser's permission.) Planned program of individual study of topics in mathematics, under the guidance and supervision of a member of the Department.
Prerequisite: Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 796 - Independent Study (2)

(May be reelected for credit with Graduate Adviser's permission.) Planned program of individual study of various topics in mathematics, under the guidance and supervision of a member of the Department.
Prerequisite: Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 797 - Independent Study (3)

(May be reelected for credit with Graduate Adviser's permission.) Planned program of individual study of various topics in mathematics, under the guidance and supervision of a member of the Department.
Prerequisite: Graduate Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

MAT 798 - Independent Study (3)
(May be reelected for credit with Graduate Adviser's permission.) Planned program of individual study of various topics in mathematics, under the guidance and supervision of a member of the Department.
Prerequisite: Graduate Adviser's written permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MAT 799 - Master's Thesis Research (4)

Master's Thesis Research
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS - Master's in Liberal Std

## MLS 701 - Introduction to the Liberal Arts (3)

Current debates about interdisciplinarity and transdisciplinarity and the languages of selected academic disciplines.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 702 - The Arts and Humanities (3)

A survey of intersections among major themes in history, literature, philosophy, and the fine and performing arts. Introduction to methodologies necessary to analyze textual and visual evidence historically and critically.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 703 - The Social Sciences (3)

The aim is to help students learn to evaluate critically the claims of social scientists by helping them appreciate more deeply the evidence and reasoning used to justify them. Study of both classical and contemporary studies demonstrating a
wide range of theoretical approaches and methodologies of the social sciences. Also critical comparison and evaluation of the social sciences' general claims of scientific validity.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 704 - The Natural Sciences (3)

The course aims to provide students with "scientific literacy." It is designed to give firsthand knowledge of the classic works and great figures of science, from Aristotle to the present. Includes hands-on laboratory experience to give a practical sense of the difficulties and limitations of experiment and observation in gathering knowledge about nature. Stresses general philosophical and methodological issues that scientists and non scientists should confront.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 795 - Independent Reading (3)

Reading on special topics chosen in consultation with the student's faculty adviser and with the approval of the liberal studies Faculty Advisory Committee.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 796-Capstone Project (3)

Under the supervision of a program-appointed adviser, with input from a second faculty member, students research and produce a capstone project. Possible projects, incorporating approaches from at least two different academic disciplines, may include but are not limited to a research paper, a literature review, an annotated critical bibliography, or the development of a website.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MLS 797 - Master's Thesis Preparation (6)

Supervised research, culminating in an interdisciplinary Master's Thesis.
Prerequisite: Open only to the students matriculated in the Program in Liberal Studies. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MSB - MS Business

## MSB 700-Organizational Behavior (3)

Study of human behavior in organizational settings; the interface between human behavior and the organization; structures and processes characteristic of organizations themselves; and ethical issues emerging in the management of human resources.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 701 - Quantitative Analysis for Managers (3)

A survey of modern statistical concepts and quantitative methods as applied to business research and decision making. Statistical techniques covered include descriptive data analysis, probability distributions, correlation analysis, and regression analysis. Applied methods include linear programming and decision-making models. The objective is to prepare the student to analyze business data and to understand the statistical analyses encountered in business.

Cross-Listed as: LEH ECO 740/MSB 701. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSB 702 - Economic Analysis for Managers (3)

After a review of the basic microeconomic market structures, the course examines specific problems faced by the firm. These include managerial decisions regarding economic forecasting, analysis of return, risk and uncertainty, and allocation of resources for production.
Cross-Listed as: LEH ECO 730/MSB 702. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSB 703-Computer-Based Information Systems for Managers (3)

This course explores the impact of computers on the scope and operation of business information systems. Topics include the technology, design, and implementation of computerbased systems and the role of systems design in improving the management process.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 705 - Financial Management (3)

Techniques available for making financial decisions, with emphasis on those that deal with long-term investment projects. Specific topical coverage includes time valuation of money, value of assets, capital budgeting techniques, cost of capital and capital structure, dividend policy, and share value.
Cross-Listed as: LEH ECO 765/MSB 705. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSB 710 - Investment Analysis (3)

Principles involved in measuring and evaluating risk in various debt and equity instruments, with emphasis on security valuation. Specific topics include time valuation of money, value of assets, capital budgeting techniques, cost of capital and capital structure, dividend policy, and share value.

Cross-Listed as: LEH ECO 767/MSB 710. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSB 711 - Capital Budgeting (3)

Capital assets planning and evaluation. Topics covered include relevant cost concepts for decision making, present value theory and analysis, the theory and measurement of rate of return and cost of capital, and an introduction to capital rationing and probability theory. Specific cases are used to illustrate the practical aspects of each of the areas covered. Related problems, such as leasing, pricing, and debt refunding, are also introduced.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 712 - Financial Statements Analysis (3)

Review of general principles governing the construction of financial statements; asset valuation, income determination and consolidated financial statements; characteristics of financial statements related to an understanding of analytical methods, including working capital, the statement of changes in financial position, and cash flow statements; examination of techniques used in analyzing solvency and the quality of earnings; forecasting techniques and implications; and impact of price level changes on financial statements and methods of financial statement analysis.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 713 - International Financial Management (3)

The nature and purposes of financial management in the international context--sources of international investment and financing and strategies to procure and employ these resources; the role of exposure to exchange rate and international interest rate risks; use of banks and financial markets, such as Eurobond and currency option markets; and relevant techniques such as currency swaps, lease financing, and hybrid bond structure.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSB 720 - Managing in a Global Environment (3)
Management processes and practices applicable to international business operations: examination of managerial functions, such as planning, organizing, communicating, staffing, and motivating and controlling, with respect to the global parameters of the business environment.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 721 - Applied Marketing Research (3)

Provides students with a complete understanding of the methods and techniques involved in marketing research. Students will become familiar with all stages of the market research process from initial problem definition through the presentation of final results.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 722 - International Marketing Management: Culture, Law, and Politics (3)

Key concepts of international marketing; emerging marketing opportunities and threats; entry mode strategies of international marketing; global strategies for products, brands, pricing, distribution, logistics, and communication; policy framework for international trade; international trade finance and risk management; institutional infrastructure for export promotion; international marketing research, export procedures, and documentation; and the World Trade Organization and its implications on international marketing.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 723 - Contemporary Issues in Marketing (3)

Procedures utilized in creating a commercially viable product market, from the initial needs analysis through marketing the product in local and international economy. The promotional process will be particularly emphasized, including its advertising, sales and trade promotion, personal selling, and communication components.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 730 - Human Resource Management (3)

Introduction to human resource management as a functional field of business administration. Topics include employment, placement, and human resource planning; training and development of an organization's human resources; compensation and benefits; management and labor relations; health, safety, and security; training in ethics and social responsibility; and human resource research.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 731 - Employee Training and Development (3)

Advanced study of human resource management focusing on effective employee training and development. Topics include equal employment opportunity, recruiting, selection, training and development, compensation, and employee and labor relations.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 732 - Managing Group and Interpersonal Dynamics

 (3)Special techniques involved in human resources supervision in handling morale, discipline, communication, grievances, learning, and other phases of employee and labor relations.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 734 - International Human Resource Management (3)

Theoretical and practical perspectives in the planning and implementation of an effective human resource program in a global business setting
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSB 741 - Operations Research (3)

This course deals with the application of mathematics to decision-making problems. The mathematical and statistical techniques covered include linear programming, correlation, and probabilistic models. The objective is to enable the student to translate a verbal description problem into an equivalent mathematical model and define the value of the information derived from the model for practical purposes. Applications include inventory control and quality control problems.
Prerequisite: MSB 740. Cross-Listed as: LEH ECO 741/MSB 741. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSB 768 - Money and Banking (3)
The instruments of the money and capital markets will be identified and discussed; the significance of fiscal and monetary policies and their effects on the money and capital markets, and the flow of funds will be analyzed.
Cross-Listed as: LEH ECO 768/MSB 768. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
MSB 785 - Independent Graduate Study in Business (3)
Individual study and research on a selected topic approved and supervised by a faculty member.
Prerequisite: To be determined by the supervising full-time faculty. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

MSB 790 - Graduate Research Project in Business (3)
With the approval and under the supervision of a faculty member, students will select an original topic, specify the intended methodology, comment on initial findings, and present the results of their research in a scholarly report.

Prerequisite: To be determined by the supervising full-time faculty. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSB 795 - Seminar in Strategic Management (3)
Formulation and implementation of corporate strategy and the integration of these decisions in different functional areas.

Prerequisite: All the core courses and at least two courses in a major field must be completed before taking this seminar. Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
MSB 796 - Seminar in Ethical Issues in Management (3)
A multidisciplinary approach to the issues of ethical business practice, based on the examination of the role of business leadership in influencing society at large. Students will examine various experiences and participate in discussions regarding ethical dilemmas and day-to-day situations. Case studies are used to develop students' skills in situation analysis and conflict resolution.

Prerequisite: All the core courses and at least two courses in the major field must be completed before taking this seminar. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSH - Music History

MSH 700 - Performance Practice from the Baroque to the Present (3)
Performance practices of music from 1600 to the present.
Prerequisite: Departmental permission. Requirement
Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MSH 750 - Special Topics in Music History (3)

Topics vary from semester to semester.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MSH 751 - Topics in Ethnomusicology (3)

Advanced studies in ethnomusicology. Topics vary from semester to semester. Musical works and practices from around the world, emphasizing structure, style, and place in originating culture, and perspectives for apprehending diverse musical aesthetics and cultures. Engagement with ethnomusicology's theoretical and methodological foundations and current research methods. May be repeated for up to 6 credits.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
MSH 780 - Independent Study in Music History (3)
Independent research and analysis on a topic in music history under the direction of a faculty advisor.

Prerequisite: Department permission. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## MSP - Music Performance

## MSP 701 - College Choir (1)

Study and performance of choral repertoire. Development of leadership and assessment skills in preparing a large vocal ensemble.
Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 702 - Chamber Choir (1)

Study and performance of chamber choral repertoire. Development of leadership and assessment skills in preparing a small vocal ensemble.
Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 703 - Concert Band (1 (Maximum 6 credits))
Study and performance of concert band repertoire. Development of leadership and assessment skills in preparing a large ensemble.

Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 704-Orchestra (1 (Maximum 6 credits) )

Study and performance of orchestral literature. Development of leadership and assessment skills in preparing a large ensemble.

Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 705 - Chamber Ensemble (1 (Maximum 6 credits))

Study and performance of small instrumental ensemble music. Development of leadership and assessment skills in preparing a small ensemble.

Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 706 - Latin Band (1 (Maximum 6 credits))
Study and performance of Latin band repertoire and improvisation techniques. Development of leadership and assessment skills in preparing an ensemble.
Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 707 - Jazz Band (1 (Maximum 6 credits))

Study and performance of jazz repertoire, including big-band, bebop, Latin, fusion, and free-jazz, including improvisation and rehearsal techniques. Development of leadership and assessment skills in preparing a large jazz ensemble. (Maximum 6 credits).
Prerequisite: Audition and departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 710 - Performance I (2)

Intensive private instruction in principal instrument or in voice. Participation in at least one department ensemble as assigned. Public performance required.
Prerequisite: Audition and departmental permission. Corequisite: MSP 700, MSP 701, MSP 702, MSP 703, MSP 704, MSP 706, or MSP 707. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 711 - Performance II (2)

Continued intensified private instruction in the student's principal instrument or in voice. Participation in at least one department ensemble as assigned.
Prerequisite: MSP 710 and departmental permission. Corequisite: MSP 700, MSP 701, MSP 702, MSP 703, MSP 704, MSP 706, or MSP 707.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 712 - Performance III (2)

Continued intensified private instruction in the student's principal instrument or in voice. Participation in at least one department ensemble as assigned. Public performance required.
Prerequisite: MSP 711 and departmental permission. Corequisite: MSP 700, MSP 701, MSP 702, MSP 703, MSP 704, MSP 706, or MSP 707.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

MSP 713 - Performance IV Graduation Recital (2)
Continued intensified private instruction in the student's principal instrument or in voice toward the preparation of a major solo recital. Participation in at least one department ensemble as assigned.

Prerequisite: MSP 712 and departmental permission. Corequisite: MSP 700, MSP 701, MSP 702, MSP 703, MSP 704, MSP 706, or MSP 707.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 722 - Vocal Pedagogy (1)
The pedagogy, pathology of the voice.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSP 723 - Secondary Instrument Laboratory Ensemble I

 (1)Study of secondary instruments in an elementary-level performing ensemble. Development of basic teaching, conducting, and composing skills relating to all standard instruments. All students will be required to conduct and coach as well as perform on secondary instruments.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 724 - Secondary Instrument Laboratory-Ensemble II (1)

This course will build on skills developed in MSP 723.
Prerequisite: MSP 723. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 740 - Career Development for Music Performers (1)

Career skills for professional music performers, including studio teachers, music entrepreneurs, teaching artists, ensemble directors, and others. Topics may include grant writing, certification preparation, and basic business development.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSP 745 - Advanced Conducting (3)

Development of baton technique and score reading leading to performance on the podium.

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSP 750 - Special Topics in Music Performance (3)

(Maximum 6 credits). Topics vary from semester to semester.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MSP 760 - Piano for Music Teachers (3)

Development and practice of skills in keyboard harmony, transposition, playing by ear, sight-reading, and technique for music educators who design and implement performance programming in schools. (Students may repeat this course to continue study up to 3 additional credits.)

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
MSP 761 - New Music Literature for Music Educators (3)
Score reading and conducting of newly published instrumental music for school performance.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 762 - Topics in Instrumental Music Education (3)

Score reading and conducting of newly published instrumental music. Also, performing and analyzing of sample works which are within the preview of public school instrumental ensembles.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 763 - Topics in Instrumental Music Education (3)

Developing the large and small instrumental ensemble through reading of ensembles from octets through full band. Participants will perform new and selected compositions which would be applicable to teaching instrumental music in the public schools

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 764 - Topics in Instrumental Music Education (3)

Assessment of instrumental music selections for Concert Band. Technical perspectives and methodology related to performance as a teaching tool in school systems. Participants perform new and selected compositions applicable to teaching instrumental music in the public schools.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 765 - Evaluating Assessment Criteria for Technical and Musical Growth Public School Instrumental Music (3)

Systematic survey of instructional literature and methodologies addressing students' musical development through instrumental lessons and ensemble performance in pubic school instrumental programs. Particular attention to the development and assessment of effective learning goals and objectives.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 766 - Public-School Ensemble Programming (3)
The development, execution, and assessment of public-school instrumental ensembles, particularly concert bands. Topics include program-planning, instructional methodologies, choosing musical literature for performance, individual and ensemble skills, and assessment of student development and program effectiveness. Attention on intra/extramural performance and professional networking

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 768 - New Wind Literature for Music Educators (3)

Survey of new instrumental music programs through the topical lens of suitability, methodology, planning, and assessment of goals in relation to school music programs.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
MSP 770 - New Jazz Literature for Music Educators (3)
Score reading, analysis and rehearsal techniques for school performance, as applied to newly published instrumental jazz music.

Offered: Fall-Spring.
MSP 780 - Percussion Instrumental Music Education (2)
Introduction to techniques and rhythms from the Middle East and West Africa, and methods of teaching

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 781 - Percussion Instrumental Music Education (2)
Introduction to playing techniques and rhythmic concepts from the Middle East and India (north and south). Suitable for all music practitioners (percussion specialization not required).
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

MSP 782 - Percussion Instrumental Music Education (2)
An introduction to playing techniques and rhythmic concepts from the Middle East and India (north and south). Suitable for all music practitioners (percussion specialization not required).
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
MSP 783 - Rhythmic Concepts of India and Ghana (3)
An introduction to playing techniques and rhythmic concepts from two significant non-Western musical tradions: Ewe drumming of West Africa and North Indian classical music, including Ewe drumming techniques; traditional polyrhythmic vocalization. (Suitable for all music practitioners; percussion specialization not required.)
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MSP 784 - Intermediate Non-Western Concepts: Rhythms of the Middle East and South India (2)

An overview of playing techniques and rhythmic concepts from the Middle East and South India, with attention to important cultural and historical contexts. Suitable for all music practitioners; percussion specialization not required. Instruments covered will include dumbek, riq, tar, bendir and kanjira.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

MSP 790 - Special Techniques in Piano for Music Teachers (2)
Development of skills in keyboard harmony, transposition, and sight-reading for K-12 music teachers who design and implement performance programming in which they accompany, rehearse, and improvise at the piano.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MST - Music Theory

## MST 710 - Advanced Musical Analysis (3)

Advanced analytical study of music from 1600 to the present.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MST 711 - Composition (3)

Supervised composition of original scores for both instruments and vocal combinations.

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MST 712 - Music, Computers and Multimedia Pedagogy (3)

Practical study of the use of state-of-the-art digital music and video software in the creation of music and music-based multimedia projects for the classroom, with emphasis on pedagogical considerations for elementary, middle and secondary school applications. Traditional elements of music theory, composition, orchestration and arranging are studied alongside contemporary concepts of digital music and video production.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MST 714 - Advanced Musicianship (2)

Development of musicianship skills to advance understanding, hearing, and performance of musical styles composed after 1900, including chromatic modes, atonality, dodecaphony, and more.
Prerequisite: Department Permission Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## MST 730 - Introduction to Music Therapy (3)

Music as a therapeutic medium to meet communicative, cognitive, emotional, sensory-motor, perceptual-motor, and
psychological needs in children, adolescents, and adults. The impact of music on behavior in special education, in rehabilitation programs, and for general health and wellness. Combines lectures with experiential activities.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MST 731 - Music and the Brain (3)

Music cognition, particularly how musical experience is expressed, mediated, and analyzed. Research on music and the brain, from the perspectives of education, health sciences, and music's therapeutic potential.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## MST 750 - Special Topics in Music Theory (3)

(Maximum 6 credits). Topics vary from semester to semester.
Prerequisite: Department Permission Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
MST 780 - Independent Study in Music Theory (3)
Independent research and analysis on a topic in music theory under the direction of a faculty advisor.

Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

- Additional Credits (6)
- And ()
- And/Or ()
- Area of Specialization (6)
- Art courses (12)
- Art History (6)
- Art History courses (9)
- Childhood Education Courses (12)
- Clinical Support Elective ()
- Cognate Course (3)
- Comprehensive Examination (0)
- Early Childhood Education Courses (12)
- Elective (3)
- Elective courses in Art (12)
- Electives (6)
- Four courses in the biological sciences ()
- Mathematics Education (6)

CHE - One course in chemistry ()

PHY - One course in physics 0

- Or ()
- Other courses ()


## PHE - PHE elective ()

- Plus ()
- Related electives ()
- 0
- TESOL Electives (3-6)


## ART - Three ART courses in Studio Art (9)

## ARH - Two ARH courses in Art History (6)

## NUR - Nursing

## NUR 561 - Gender Issues and Stress (3)

The women's movement has produced a variety of social and personal changes for both men and women. This course will review stress theories and their application to some of the
developing and current stressors for women and their partners. Consideration given to dual roles, superwoman syndrome, and differing spousal expectations as well as to stress-reduction techniques, such as self-awareness, stress management, and coping strategies.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 600 - Biostatistics in Health Research (4)

Application of statistical techniques in the analysis of health data. Emphasis on interpretation of basic descriptive and inferential statistics in health research. Includes an introduction to computer software used in the statistical analysis of health data.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 720 - Concepts and Theories for Advanced Nursing Practice (3)

This course provides a base for graduate Nursing students by analyzing selected conceptual frameworks and theories. By utilizing these concepts and building on knowledge of the nursing process, the student explores a view of human beings, health, and health care. Emphasis on development of those concepts that have particular relevance for research and nursing practice.
Prerequisite: PREREQ or COREQ: NUR 600. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
NUR 721 - Essentials of Clinical Research (3)
This course focuses on inquiry through research. Students will critique research reports and apply the research process as they develop their own proposal.

Prerequisite: PREREQ OR COREQ: NUR 720. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## NUR 723 - Strategies for Advanced Nursing Practice (3)

This course introduces theoretical frameworks for advanced practice modalities such as consultation, education, management, collaboration, and independent practice.
Prerequisite: NUR 720. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
NUR 726 - Health Planning and Policy Making: Leadership Issues (3)
An identification and critical analysis of the major issues in leadership, health planning, and policy making that confront members of the healthcare discipline.
Prerequisite: PREREQ: NUR 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 730 - Nursing Informatics (3)

This course focuses on computer technology and its role in the present day nursing practice, applications of computer technology to advance nursing practice and research, and analysis and interpretation of nursing and health related databases.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 731 - Total Quality Management (T.Q.M.) (3)

Major concepts of total quality management/continuous quality improvement, including process of change, effective teams, and rapid improvement.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 748 - Nursing Administration of Healthcare Systems

 (3)Cognate course required for nurse administrator role. This course is designed to introduce basic principles and methodologies of organizational management. Topics include organizational structure and management, human resource management, marketing, and budgeting, and quality assurance. Learners are expected to develop familiarity with essential management issues, e.g., organizational structure, management of resources, and quality control.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
NUR 749.1 - Nursing Practice Synthesis \& Application, Section 01, Advanced Nurse Practice Role (6)

Clinical and didactic aspects of this course that prepare the student for advanced nursing practice.
Prerequisite: NUR 766 or NUR 767 for Section 01 is related to the area of advanced practice nursing. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
NUR 749.2 - Nursing Practice Synthesis and Application, Section 02, Nurse Administrator Role (6)
Clinical and didactic aspects of this course that prepare the student for advanced nursing practice.
Prerequisite: NUR 766 or NUR 767 for Section 01 is related to the area of advanced practice nursing. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.
NUR 749.3 - Nursing Practice Synthesis and Application, Section 03, Nurse Educator Role (6)
There are clinical and didactic aspects of this course that prepare the student for the Nurse Educator Role.
Prerequisite: NUR 756. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 753 - Independent Study: Implementation of Research (3)

(May be repeated once with permission of the instructor.) This course is designed to provide the student with an opportunity to develop and implement a research study with faculty guidance.
Prerequisite: NUR 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 754 - Cultural Perspectives in Healthcare (3)

Introduction to anthropological concepts related to health and disease, including culturally diverse beliefs about disease etiology and treatment modalities. Emphasis on urban communities; includes a "mini-field experience," during which students will observe client-practitioner behaviors in clinical nursing settings in metropolitan New York.
Prerequisite: Graduate students, none; undergraduate students, ANT 341. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 755 - Cultural Perspectives in Natality (3)

The ideology of natality includes perceptions and values about sexuality, childbirth, contraception, and abortion. Natality can be used as a prism through which to view the social and economic history of women in modern America. Changing ideas about childhood, the home and domesticity, women's place in education and in the world of work have all influenced and been influenced by concepts of natality.
Prerequisite: Graduate students, none; undergraduate students, ANT 341. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 756 - The Nurse's Role in Professional Development (3)

Cognate course required for nurse educator role. A course designed to provide an overview of the process of the dissemination of knowledge pertinent to nursing practice. Designed for nurses who are interested in providing continuing education programs, staff development offerings, or in preparing nursing students for clinical practice. Theories of adult learning, course development, preparation of objectives, teaching strategies, and evaluation methods are addressed.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 759 - Independent Study: Extra-Clinical Research (1-6)

This course is designed to provide the student with an opportunity to develop selected areas of knowledge and expertise in nursing. Specific objectives and description of projects will be developed by students with faculty approval.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 760 - Topics in Nursing (3)

(May be reelected once if the topic changes.)The course provides various sections on topics in nursing. For specific topics and sections, consult the Department.

Prerequisite: Permission of the instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## NUR 765 - Advanced Health Assessment (3)

Advanced knowledge and classroom practice in physiological and psychosocial assessment skills.
Corequisite: NUR 766. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 766 - Advanced Pathophysiology (3)

This course will examine abnormal biological processes that result in health deviations. Students will select modules specific to their chosen areas of practice.

Prerequisite: PREREQ: NUR 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

NUR 767 - Advanced Pharmacology (3)
This course provides an in-depth understanding of pharmacology across all physiological systems. Mechanism of general drug actions provide a framework for discussion of content-specific drugs. Includes 3 hours of required laws and prescription writing.
Prerequisite: NUR 766. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 769 - Family Developmental Theory (3)

Concepts common in family theory will be addressed from the perspective of the family as an adaptive system. The goal is to understand what will enhance individual and family functioning. Theoretical models that serve as the foundation for family interventions and family therapy are emphasized.

Prerequisite: NUR 720. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 770 - Advanced Practice I (6)

This clinical course focuses on health assessment of infants, children, and adolescents. Clinical laboratory emphasizes primary health care maintenance and assessment skills for advanced practice nursing.

Prerequisite: PRE- and COREQ: NUR 766 and NUR 767. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 771 - Advanced Nursing Practice II (6)

This clinical course focuses on the management of primary healthcare of infants, children, and adolescents. Clinical
laboratory focuses on management of common acute health problems, utilizing advanced practice nursing skills.

Prerequisite: NUR 770. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 772 - Advanced Nursing Practice III (6)

This clinical course will focus on the management of infants, children, and adolescents with chronic conditions and special health needs. Legal, ethical, and health policy issues related to the role of the pediatric nurse practitioner are emphasized.
Prerequisite: NUR 771. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 773 - Advanced Health Assessment (3)

Theories and methods of comprehensive assessment of clients across the life span, including physical, psychosocial, and pathophysiological signs and symptoms; refinement of ability to utilize sophisticated techniques to assess, identify, and differentiate deviations from normal; incorporate cultural and developmental variations and needs of client.
Prerequisite: PREREQ: NUR 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

NUR 774 - Advanced Family Nursing Practice I - Using a Nursing Science Framework (6)

Within a nursing science and family/community systems framework, the focus of this course is upon delivery of primary care to culturally diverse families during the childbearing years. Development from conception through young adulthood will be viewed from the perspective of urban family life. Concepts from epidemiology, community health, nursing and family theories will be incorporated throughout. Clinical experiences, will provide opportunities for students to promote health and prevent illness; diagnose, treat, and manage children's health. Implementation of clinical decision making, interventions and health care protocols emphasizing early detection, control and/or resolution of the acute phase of children' health problems in a variety of ambulatory care settings. To provide knowledge and application of theory and skills of primary care of children's levels of health required for the family nurse practitioner as a primary health care provider. Case studies and seminars will supplement the didactic instruction.

Prerequisite: PREREQ/COREQ: NUR 769. PREREQS: NUR 773, NUR 767, NUR 766. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
NUR 775 - Advanced Family Nursing Practice II - Using a Nursing Science Framework (6)

Within a nursing science and family/community systems framework, discussions and clinical experiences, covering treatment and symptom management of adults and older adults' health promotion, maintenance, and prevention of
illness. Implementation of clinical decision making, interventions and health care protocols, emphasizing early detection, control and/or resolution of the acute phase of adults and older adults' health problems in a variety of ambulatory and acute care settings.

Prerequisite: NUR 774. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
NUR 776 - Advanced Family Nursing Practice III - Using a Nursing Science Framework (6)
Within a nursing science and family/community systems framework, discussions and clinical experiences, covering treatment and symptom management of all family member's acute, chronic and/or rehabilitation health care requirements. Implementation of clinical decision making, interventions and health care protocols, emphasizing care management strategies of children/adults/older adults within the context of the family nurse practitioner's role.
Prerequisite: NUR 775. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
NUR 780 - Pharmacology of Anesthesia (3)
Clinical application of pharmacology to anesthesia, with emphasis on the application of pharmacologic principles of anesthetic and resuscitative processes essential to safe anesthesiology nursing practice.
Prerequisite: NUR 767. Offered: Fall-Spring.

## NUR 781 - Professional Aspects of Nurse Anesthesia (3)

This course provides an understanding of the regulatory agencies and their guidelines for the practice of nurse anesthesia. The ethical, professional, and legal aspects of nurse anesthesia are explored.

Prerequisite: Consent of instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 782 - Principles of Anesthesia I (3)

A study of the mathematical, chemical, physical, and pharmacokinetic principles as they apply to anesthesiology nursing practice.
Prerequisite: NUR 765 and NUR 766 and consent of the instructor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 783 - Principles of Anesthesia II (3)

Continuation of NUR 782, with a focus on scientific bases of anesthesiology nursing practice derived from biochemistry, cell physiology, biologic hazards, mechanisms of anesthesia, and principles of safe practice. Laboratory experiences at various clinical sites included.

Prerequisite: NUR 782. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 784 - Principles of Anesthesia III (3)

Integrates physiologic, pathophysiologic, and pharmacologic concepts with anesthesia management. Provides foundation for decision making in planning and implementing anesthesia care individualized to meet specific client needs.
Prerequisite: NUR 783. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 785 - Principles of Anesthesia IV (3)

Continuation of principles of anesthesia (I-III) with emphasis on endocrine, renal, and gastrointestinal systems. Principles of anesthesia for the obstetric, pediatric, and geriatric patients.

Prerequisite: NUR 784. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 786 - Principles of Anesthesia V (3)

Emphasis on complex clients having emergency surgery resulting from trauma, burns, or drug abuse. Includes anesthesia for patient with cancer, patient undergoing hypotensive anesthesia technique, plastic surgery, otolaryngological surgery, cardiac surgery, and ambulatory surgery.

Prerequisite: NUR 785. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 787 - Advanced Professional Seminar (3)

This course provides the experience for graduate Nursing students to complete and present their clinical research project, including formal presentation (oral and written) of the results.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## NUR 790 - Curriculum Design and Program Evaluation (3)

Curriculum design principles and strategies that incorporate accrediting or regulatory bodies' essentials for nursing education. Examination of philosophy, conceptual framework and objectives that guide curriculum design and program evaluation. Analysis of internal and external factors that impact decisions about curriculum design.
Prerequisite: NUR 600, NUR 720, NUR 721 Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## NUR 791 - Measurement and Evaluation of Teaching and Learning (3)

Principles of evaluation and measurement for teaching and learning in nursing are examined. A variety of measurement techniques will be explored. Emphasis is on translating measurement outcome data to improve evaluation of teaching and learning.

Prerequisite: PRE-REQ: NUR 600, NUR 756. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## NUR 799 - Master's Project Seminar (1)

The master's project seminar guides students to develop a proposal for their final project and to ready it for implementation. The final projects are based on specific areas of interest that have been identified in previous graduate courses and are congruent with master's project objectives.
Prerequisite: At least the first advanced nursing specialization course (NUR 732, NUR 738, or NUR 751); PRE- or COREQ: NUR 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## PHY - Physics

## PHY 601 - Advanced General Physics (3)

(Intended primarily for graduate students in the teaching of science and mathematics.) A mature synthesis of basic concepts in classical and modern physics.
Prerequisite: One year of college physics. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## PHY 602 - Modern Physics (4)

(Intended primarily for high school science and mathematics teachers, but open to other qualified graduate students.) Study of various aspects of the physics of the twentieth (and twentyfirst) century. Emphasis will be on the theory of relativity and on quantum physics, including applications to technology. Relevant laboratory exercises will be performed.
Prerequisite: Two semesters of general physics and one semester of calculus. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
PHY 603 - Selected Topics in Physics for Biology Students (3)
(Intended primarily for graduate students in the teaching of biology and general science.) Particular emphasis will be placed on the discussion and demonstration of those basic phenomena and laws especially useful to teachers of biology and general science.
Prerequisite: One year of college physics. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## PHY 605 - Physics for Teachers (4)

Fundamental physics concepts and related pedagogical practices. General principles, including symmetry and topology, dimensionality and phase space, determinism and chaos, quantum uncertainty and relativity, that underlie physical phenomena. Historical perspectives on physical sciences and their impact on society.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## PHY 606 - Astrophysics (3)

Physics of astrophysical systems, including celestial mechanics, stellar astrophysics, high-energy processes, and cosmology. The course covers a wide range of advanced topics, including derivations of some of the most important equations used in astrophysics. Techniques in observational astronomy are also covered.
Prerequisite: Permission of the Department. Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## POL - Political Science

## POL 501 - The United States in World Affairs (3)

This course will analyze the most important political, military, and economic problems in the international competition for power and order, alliances, the East-West struggle, and the balance of power; war; nationalism and colonialism; diplomacy; the United Nations; regionalism; and problems of foreign aid and international trade.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 502 - Government and Politics in the United States

 (3)Selected problems: federalism, civil liberties, parties and pressure groups, Congress, the Presidency, and the Supreme Court.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
POL 503 - Introduction to the Theory of Socialism and Communism (3)
Selected problems in the origin and development of theory in the tradition of Marx, Engels, Lenin, and other socialist thinkers.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 504 - Constitutional Law (3)

Introduction to the study of the U.S. Constitution and key Supreme Court decisions bearing on equality, procedural law, federalism, the separation of powers, rights and liberties.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 505 - Problems of Stability in Constitutional Democracies (3)

Comparison and contrast of contemporary constitutional democracies, such as the U.S. the United Kingdom, France, and the German Federal Republic, with the focus on the sources of political stability and instability.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 610 - Western Political Thought (3)

The basic ideas and systems of western political thought from Plato through Marx.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 630 - Contemporary Comparative Government (3)

Government structures, ideological foundations, and the functioning of political institutions in selected European states.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 651 - Urban Politics and Government (3)

The government of modern cities, including New York City, its role in the metropolitan area, and its relationship to the local and national government. The impact of economic and social forces on the political process.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## POL 660 - International Politics (3)

The basic factors in international politics and the struggle for power and order in world politics.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
POL 703 - Schools, Communities, and the Politics of American Public Education (3)
The analysis of social and political influences on education policy and institutions. The impact of interaction among local, state, and national governments and interest groups upon education policy.

Prerequisite: POL 166 or equivalent. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## PRS - Puerto Rican Studies

PRS 500 - Seminar on the Cultural History of Puerto Rico I (3)

The cultural history of Puerto Rico, with special emphasis on the period 1800-1898.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

PRS 501 - Seminar on the Cultural History of Puerto Rico II (3)
The cultural history of Puerto Rico, with special emphasis on the period from 1898 to the present.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

PRS 550 - A Comparative Study of Puerto Rican Culture (3)

Ethnographic analysis of modern communities in Puerto Rico and the effects of urbanization, industrialization, and tourism. Comparative analysis of Puerto Rican culture in New York, and evaluation of the educational process within each of the two cultures

Cross-Listed as: LEH PRS 550/ANT 550. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC - Recreation

## REC 640 - Therapeutic Recreation \& Disabilities (3)

Charactertics, functional limitations, implications for therapeutic recreation services, and overall impact of disabilities on the individual's health and leisure from anecological perspective.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 680 - Special Topics in Recreation (3)

(May be reelected for credit as the topic changes, with Graduate Adviser's permission). Consideration of recent developments in the field of recreation, with special emphasis on interdisciplinary contributions.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 700 - Recreation and Leisure in Modern Society (3)

Examines basic concepts of play and recreation, with emphasis on changing leisure trends and the provision of organized recreation programs by public, voluntary, therapeutic, and commercial agencies.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## REC 701 - Research Methods and Evaluation in Recreation (3)

Presentation of research designs, methods, and instruments.
Examination of goals and techniques of evaluation in organized recreation service.
Prerequisite: HEA 600. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

REC 702 - Recreation Program Planning and Leadership (3)

Program planning, scheduling, and operation in public, voluntary, therapeutic, and commercial settings. Basic principles and practices in group leadership.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 703 - Administrative Process in Recreation and

 Parks (3)Analyzes the administration of recreation and park programs in varied settings, including goal setting and policy development, personnel and facilities management, fiscal operations, and public and community relations.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 704 - Therapeutic Recreation Service (3)

Examines conceptual bases, goals, and practices of therapeutic recreation service for diverse populations and settings, including philosophical foundations, historical and professional development, models of practice, ethics, trends, and issues.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 705 - Community Recreation and Park Facilities (3)

Examines design, construction, and maintenance of varied recreation and park facilities: parks, playgrounds, centers, pools, athletic complexes, and other special structures.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 706 - Outdoor Education and Recreation (3)

Environmental education and nature-oriented recreation programs, as part of the program of schools and community recreation and parks departments. Analyzes goals, methods, and resources; includes field trips.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 707 - Therapeutic Recreation in Geriatric Settings (3)

Examination of therapeutic recreation services for older adults, including settings, needs, programming, interventions and ethical issues.

Prerequisite: Permission of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 708 - Therapeutic Recreation in Psychiatric Rehabilitation (3)

Application of the therapeutic recreation process to psychiatric diagnoses and the role of leisure in mental health.
Prerequisite: Permission of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 709 - Therapeutic Recreation and Developmental Disability (3)

Examination of the role and functions of therapeutic recreation in the lives of people with developmental disabilities, including instructional strategies, leisure education, and inclusion.

Prerequisite: Permission of Graduate Advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 710 - Therapeutic Recreation Applications to Social Problems (3)

Examination of the prevention and treatment roles of therapeutic recreation for individuals whose conditions are either caused (all or in part) or exacerbated by societal situations and/or that have a significant impact on society, such as poverty, homelessness, substance and other forms of abuse, risky environments, and incarceration.

Prerequisite: Permission of Graduate Advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 711 - Therapeutic Recreation Programs and Physical Disability (3)

Examination of therapeutic recreation services for people with physical disabilities and health conditions, including characteristics of physical conditions, psychosocial impacts of disability, and assessment and program design.

Prerequisite: Permission of Graduate Advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 712 - Leisure Counseling and Community Programs (3)

Examination of therapeutic recreation services for individuals with disabilities in a variety of settings.

Prerequisite: Permission of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## REC 714 - Therapeutic Recreation Program Design (3)

Examination of the design of therapeutic recreation services and the application of the therapeutic recreation process with emphasis on the standards for practice and assessment as the basis of treatment planning, documentation, developing diagnostic and program protocols and evaluation.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## REC 715 - Clinical Practice and Internship (3)

Field placement in approved institution or community agency, including therapeutic, public, or voluntary settings. Required
for graduate recreation majors without professional experience.

Prerequisite: Permission of the Graduate Advisor. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
REC 724 - Advanced Therapeutic Recreation Processes (3)
Examination of therapeutic recreation practice with emphasis on therapeutic use of self, design and implementation of therapeutic groups, therapeutic recreation program leadership and evaluation and selection of appropriate intervention modalities.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 781 - Research Seminar (3)

Students examine published research and develop thesis proposals. Those who receive committee approval of proposals during the semester may begin actual research.
Prerequisite: Nine graduate credits in recreation, including REC 700 or REC 701, and approval of Graduate Adviser. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## REC 790 - Independent Study in Recreation (1-3)

Planned program of individual study under the guidance and supervision of a member of the department. (May be reelected for up to 3 credits.)
Prerequisite: Permission of Graduate Advisor and 15 credits in Recreation. Requirement Designation: Graduate NonLiberal Arts. Offered: Fall-Spring.

## REC 791 - Thesis (3)

Individual research under faculty supervision. Credit gained upon completion and acceptance of thesis.

Prerequisite: REC 701 and REC 781. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## RLG - Romance Language

RLG 701 - Introduction to Romance Linguistics I (in English) (3)

Comparative study of the evolution of French, Italian, and Spanish. Study of principles underlying the development of the Romance languages and present methods of analysis.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## RLG 702 - Introduction to Romance Linguistics II (in English) (3)

Continuation of RLG 701. Phonology and morphology of Old French, Old Italian, and Old Spanish, with their development through Vulgar Latin.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
RLG 705 - Studies in Comparative Romance Literature I (in English) (3)

The sources, nature, impact, and interdependence of the major literary currents in the various Romance literatures from the medieval period to the Renaissance.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
RLG 706 - Studies in Comparative Romance Literature II (In English) (3)

The sources, nature, impact, and interdependence of the major literary currents in the various Romance literatures from the Enlightenment to the modern era.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## RLG 741 - Old French (3)

Study-descriptive and historical-of the grammar of Old French. Reading of selected poetry and prose texts.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SOC - Sociology

SOC 510 - Culture and Education (3)
Education and child training in selected societies. The bearing of the principles of social anthropology on contemporary problems of education.
Cross-Listed as: LEH SOC 510/ANT 510. Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

SOC 520 - Interculture Relations (3)
Analysis of diverse cultural patterns; nature of culture change, directed and nondirected; critical examination of case studies.

Cross-Listed as: LEH SOC 520/ANT 520. Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.
SOC 751 - Topics in Sociology (3)
Study of various topics in sociology. (For specific topics and sections each semester, consult the Department.) (May be repeated for a maximum of six credits.)

Requirement Designation: Regular Non-Liberal Arts. Offered: Fall-Spring.

## SPA - Spanish

## SPA 601 - Hispanic Linguistics (3)

Major issues related to the general structure of the Spanish language (phonology, morphology, syntax, semantics, pragmatics), including rules for word and sentence formation.

Prerequisite: (Open to qualified undergraduates with Departmental permission.) Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 610 - Hispanic Women Authors (3)

(Open to qualified undergraduate students with Departmental permission.) Works of women writers from Spain and/or Spanish America.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring
SPA 618 - Spanish Dialectology and Sociolinguistics (3)
Major theoretical and practical foundations of sociolinguistic variation (dialectal, social, dialect/language contact) in primarily Spanish-speaking communities and principal methods of sociolinguistic research and discourse analysis.

Prerequisite: SPA 601 or Department permission. Requirement Designation: Regular Liberal Arts. Offered: FallSpring.

## SPA 619 - Hispanic Culture (3)

A survey course that provides an understanding of the complex cultural realities of the Hispanic World through the interdisciplinary study of a variety of practices and products (film, popular festivals, literary texts, music, art). The course will also enable the students to integrate the newly acquired knowledge into their foreign language instruction.

Requirement Designation: Regular Liberal Arts. Offered: FallSpring.

## SPA 701 - Principles of Literary Analysis and Criticism

 (3)Critical approaches to the reading and understanding of literary texts.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 711 - Spanish Literature of the Middle Ages (3)
Study of a medieval genre, a subgenre, or a literary topic. The selection may include epic and romance, ballads, "mester de clerecia and mester de juglaria," short fiction, courtly love, etc.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 721 - Spanish Poetry of the Golden Age (3)

Study of the poetic traditions of the Renaissance and the Baroque.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

SPA 722 - The Spanish Novel of the Golden Age (3)
Narrative prose of the Renaissance and the Baroque.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 723 - Spanish Drama of the Golden Age (3)
The Comedia: its antecedents and its major playwrights.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 724 - Cervantes (3)

Don Quixote and the birth of the modern European novel, with attention to the many literary genres, narrative and lyric, that converge in the work.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 731 - Spanish Literature of the Nineteenth Century (3)

Romanticism and Realism in Spain.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 741 - The Generations of 1898 and 1927 (3)
Selected works of representative authors from the turn of the century to the Spanish Civil War.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 742 - Spanish Literature after the Civil War (3)

Selected works written in Spain and in exile after 1939.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 743 - Spanish Poetry of the Twentieth Century (3)

This course will offer students extensive understanding of the poetry of twentieth-century Spain. Surrealism, the Generation of 27 , the Generation of 36 , the new poetry of the 70 s, and the diverse currents of the end of the century will be presented in relation to political, social, and economic trends.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 751-Colonial Spanish-American Literature (3)
Prose and poetry from the discovery of America through 1800.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 752 - Spanish-American Literature of the Nineteenth Century (3)
The study of topics, such as the wars of independence, national identity, slavery, and democracy, as manifested in literary texts.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 753 - "Modernismo" in Spanish America (3)

The concept of modernity and Modernism in literary works.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 754-Twentieth-Century Spanish-American Narrative (3)

Tradition, innovation, and experimentation in the prose narrative of this century.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.
SPA 755 - Twentieth-Century Spanish-American Poetry (3)

Analysis of selected texts.
Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 761 - Topics in Hispanic Literatures (3)

(Course may be repeated for credit.) Offerings vary from semester to semester.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPA 771 - Readings in Hispanic Literature (1-3)

Independent study of Peninsular and/or Spanish-American literary works, carried out by individual students under the guidance of Departmental faculty.

Requirement Designation: Graduate Liberal Arts. Offered: Fall-Spring.

## SPE - Speech

SPE 530 - Organization of the Speech and Hearing Program in Elementary and Secondary Schools (3)
Problems of organizing and administering a program of intervention in speech and language disabilities in public schools. Discussion includes multicultural and multilingual perspectives in education.
Prerequisite: SPV 326, SPV 327, and SPV 328, and Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 700 - Introduction to Research Methods (3)

Critical, historical, and experimental methods used in speech-language-voice and audiology research.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 701 - Professional and Ethical Issues in SpeechLanguage Pathology (1)

Professional and ethical issues surrounding the practice of speech-language pathology. Topics include ethics, preparation for the workforce, workplace issues, and billing and reimbursement.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 703 - Theory and Application of Bilingualism to Speech Language Pathology (3)

Theories of bilingualism and language learning; psycholinguistic and sociolinguistic impact of bilingualism, bidialectalism and biculturalism on education, prevention, assessment and treatment of children, adolescents and adults with communication disorders. Emphasis will be placed on academic challenges, methods for assessing and direct teaching English language arts, literacy, and other content areas to English language learners. This course places emphasis on the multicultural and multilinguistic differences in the analysis and application of linguistic theory.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 705-Speech Science (3)

An introduction to speech perception and production; includes a review of basic acoustics and resonance models of the supralaryngeal vocal tract; an overview of select anatomical and physiologic principles relating to speech and voice production; and an introduction to acoustic and physiologic measurement of speech and voice. Students will be provided with direct experience in the clinical measurement of speech and voice.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
SPE 707 - Studies in the Regional and Social Dialects of American English (3)
An investigation of the origins and current status of the varieties of spoken English in the United States.

Prerequisite: SPE 607 or Graduate Adviser's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 717 - Advanced Anatomy, Physiology, and Neurology of Speech (3)

An overview of the anatomical, physiological, embryological, and neurological bases of speech production across the lifespan; a detailed study of ventilatory, laryngeal, and supralaryngeal structure and function; discussion of physiologic and acoustic instrumentation for speech and voice measurement.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 718 - Phonology and Articulation (3)

The normal aspects of articulation and phonology, the factors associated with articulatory and phonological disorders, and the assessment and treatment of articulation and phonological disorders across the life span.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 719 - Audiology for the Speech-Language Pathologist

 (4)Audiological assessment and (re)habilitation of children and adults with hearing loss for the speech--language pathologist. Course content includes auditory skills development, communication and listening skills impacted by hearing loss, auditory processing disorders, hearing screening across the lifespan and sound enhancement systems. Students will learn to conduct hearing screenings.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
SPE 721 - Early Childhood Language and Communication Disorders (3)
Assessment of and intervention with infants, toddlers, and pre-school-aged children with language and communication disorders. Emphasis on multicultural and multilinguistic differences, the role of families and caregivers, interdisciplinary views of children with language and communication challenges, and social-emotional and cognitive development related to early childhood language and communication disorders. Focus on communicative processes, phonology, syntax, semantics, narrative skills, pragmatics, emergent literacy, and the environmental effects on language development. Assessment and intervention for children, including autism spectrum, intellectual disabilities, and specific language impairment.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 722 - Language Disorders in School-Age Children and Adolescents (3)

Language disorders and the cognitive/linguistic processes involved in learning and in-class performance of listening,
speaking, reading, and writing; emphasis on the similarities and differences between spoken and written language and the relationship between oral and written language disorders.

Prerequisite: SPE 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 723 - The Nature, Diagnosis, and Treatment of Fluency Disorders (3)

Assessment and intervention with toddlers, preschool-aged children, school-aged children, and adults with fluency disorders. Current theories and research related to the onset and development of fluency disorders across the lifespan. Case studies related to the connection between theory and practice. Emphasis is placed on multicultural and multilinguistic differences in assessment and intervention.

Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.
SPE 725 - Diagnostic Techniques in Speech-Language Pathology (3)
Theory and practice of tests and testing procedures designed to evaluate articulation, phonology, voice, language, and other communicative disorders in preschool children, school-aged children, adolescents, and adults. Includes assessment procedures to be used with clients from multilingual and multicultural backgrounds.
Prerequisite: Undergraduate major in speech pathology (or equivalent), or instructor's permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SPE 726-Aphasia and Related Disorders (3)

Symptoms, etiology, and management of acquired neurogenic language disorders in children and adults receiving services in educational and healthcare settings. Multicultural issues that may affect diagnosis and treatment are emphasized.
Technology used in intervention will be discussed.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## SPE 727 - Voice Disorders (3)

A review of ventilatory, laryngeal, and supralaryngeal function during voice production; an overview of voice disorders, their classification, characteristics, prevention, diagnosis, and treatment; discussion of resonance-based voice disorders, alaryngeal speech and assistive speech alternatives for the laryngectomee; interpretation of basic physiologic and acoustic measures of voice and study of behavioral and/or medico-surgical intervention techniques .
Prerequisite: SPE 705 and SPE 717. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SPE 729 - Clinical Practicum and Seminar in SpeechLanguage Pathology (3 (May be repeated for up to 9 credits.))

Supervised clinical practice in the diagnosis and treatment of speech-language disorders: taking of case histories, reviewing medical, clinical, and educational records, developing treatment plans, providing treatment services, preparing clinical documents, and counseling clients regarding their communication disorder. Seminar in theoretical, evidencebased practices, and issues related to the clinical practice of speech-language pathology.
Prerequisite: SPE 718, SPE 721, SPE 722, SPE 725. PREREQ/COREQ: SPE 726. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

SPE 730 - Clinical and Classroom Practicum in SpeechLanguage Pathology (2 (May be repeated for up to 6 credits.))

Off-campus supervised field placements in clinical and classroom settings. Includes instructional and clinical planning and management, case conferencing, writing and documenting behavioral goals and objectives, and outcome assessments. Students enrolled in classroom practica will be required to obtain the certificates issued in child abuse and child violence by attending the seminars offered by the Division of Education.

Prerequisite: SPE 718, SPE 721, SPE 722, SPE 723, SPE 725, SPE 726, SPE 729 ( 6 credits), SPE 734 (3 credits).
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## SPE 734 - Diagnostic Practicum (3)

(Must be taken a minimum of two times.) Provides students with clinical experiences in evaluating speech and language disorders of children and adults.

Prerequisite: SPE 725. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SPE 735 - Seminar in Speech-Language Pathology (3)
Special topics and issues in speech-language pathology. (Can be taken up to 9 credits covering different topics).
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 736-Motor Speech Disorders (3)

Principles of motor learning in neurotypical individuals and neuropathology. Advanced study of the basic neurological substrates associated with the dysarthrias and apraxia of speech. Differential diagnosis and management of motor speech disorders across the lifespan and exposure to current research literature.

Prerequisite: SPE 717 or permission of the Program Director. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 739 - Dysphagia (3)

Review of normal and disordered swallowing function (dysphagia) in adults and children. Overview of instrumented and clinical procedures for the assessment of swallowing function. Focus on multicultural issues and attitudes toward disability, food, and feeding behaviors and their potential impact on children and adults with dysphagia; therapeutic techniques to improve swallowing function in children and adults; multidisciplinary approaches to the management of swallowing disorders in various clinical settings.
Prerequisite: SPE 717 or permission of the Program Director. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 748 - Augmentative and Alternative Communication

 (AAC) (3)Description of minimally verbal individuals throughout the lifespan; assessment through standardized and naturalistic methods; selection of appropriate modes, symbols, response methods, devices, and intervention strategies for enhancement of communication in minimally verbal individuals.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 754 - Medical Speech Language Pathology (3)

Overview of the role of speech-language pathologists in medical settings. Focus on the evaluation and treatment of acquired organic and neurological disorders. Topics include aphasia, traumatic brain injury, laryngectomy, tracheotomy and ventilator dependency, and impairments of cognition, swallowing, and voice across the lifespan. Medical terminology, abbreviations, chart review, and medical writing will be introduced.

Prerequisite: SPE 717, SPE 726. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 755 - Autism Spectrum Disorders and Related Disorders (3)

This seminar focuses on autism and related disorders of socialization across the life span. It consists of a series of modules on major topics in etiology, diagnosis and assessment, treatment and advocacy.

Prerequisite: SPE 721, SPE 722. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SPE 756 - Expert Clinical Writing and Clinical Methods (3)

This course serves to support the clinical practicum and will focus on clinical methods and clinical writing. Students will be introduced to case studies that will include a variety of
populations and disorders. Students will learn to generate treatment goals and session plans, collect baseline data, and write concise session notes.

Prerequisite: SPE 725. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 757 - Topics in Early Intervention (3)

This course is designed to give students an in-depth understanding of the unique features of service delivery to children from birth to three years of age through Early Intervention. Early Intervention policies, regulations, service delivery models, and documentation will be discussed. The significance of parent training through embedded coaching and counseling, as well as an overview of the assessment and treatment of special populations, such as pediatric feeding, genetic syndromes, will be covered.

Prerequisite: SPE 721. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SPE 796 - Independent Study (1-3 )

$1-3$ hours, variable 1-3 credits. (May be repeated for up to 3 credits.) Directed study under supervision of a member of the faculty.
Prerequisite: Departmental permission. Requirement
Designation: Graduate Non-Liberal Arts.

## SPE 799 - Thesis Seminar (1-3)

1-3 hours, variable 1-3 credits. (May be repeated for up to 3 credits.) Directed study under supervision of a member of the faculty.
Prerequisite: Departmental permission. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SWK - Social Work

## SWK 605 - Human Behavior and the Social Environment

 (3)Examination of individuals, families, groups, and communities in relation to human biological, psychological, social, spiritual, and cultural factors. Theories and knowledge emphasizing critical life events from conception through later adulthood will provide a coherent framework for viewing human beings developing over time.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SWK 606 - Human Diversity and the Social Environment (3)

Exploration of theoretical perspectives of developmental processes as well as interactions at all levels of social organization. Impact of life situations, the physical environment, and social processes on client systems in the
urban environment. Self-examination of one's values and ethics.

Prerequisite: SWK 605. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 611 - Generalist Social Work Practice I (3)

Introduction to generalist social work practice within a life model framework, including skills and techniques, integrated with professional values and ethics, for the beginning phase of generalist practice.
Corequisite: SWK 671. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 612 - Generalist Social Work Practice II (3)

Generalist social work practice within an ecological systems perspective; emphasis is placed on skills and interventive strategies with populations-at-risk during the middle and ending phases of practice. Case management skills in urban organizations.
Prerequisite: SWK 611 Corequisite: SWK 672. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SWK 639 - Social Welfare Institutions and Programs (3)

History of social services in the United States and overview of services in key contemporary fields of practice are studied through the lens of social justice and professional ethics. Special attention to social welfare policies that impact negatively on populations-at-risk in urban environments.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 643 - Social Welfare Policy Analysis (3)

Understanding and analyzing social welfare policies, especially those negatively impacting on urban populations. Empowerment of students to act as agents of change in the pursuit of social justice within agency and societal systems.
Prerequisite: SWK 639. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 646 - Social Work Research I (3)

Social work research skills, methods, and processes needed to conceptualize social problems; research project design; critical evaluation of research designs. Utilization of social work research to alleviate conditions contributing to the oppression of at-risk populations in an urban environment.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 671 - Fieldwork and Seminar I (5)

300-hour supervised internship in a social service agency as arranged by the Program. Students integrate social work knowledge, values, and skills as they provide culturally
sensitive services to diverse urban populations, and particularly to populations-at-risk. Integration of classroom content with agency practice.

Corequisite: SWK 611. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SWK 672 - Fieldwork and Seminar II (5)
300-hour supervised internship continued in the same social service agency as in SWK 671. Students further develop knowledge, values, and skills in accordance with social work ethics as they provide increasingly complex services to diverse urban populations, particularly to populations-at-risk. Integration of classroom content with agency practice.
Prerequisite: SWK 671. Corequisite: SWK 612. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SWK 680 - Special Topics in Social Work (3)

A variable topics course that enables students to pursue subjects particular to their interest. Course offerings will represent a range of issues relevant to social work practice in urban settings. Topics to be announced.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 681 - Social Work with Immigrants (3)

Circumstances faced by individuals and groups that have immigrated, or will immigrate, to cities in the U.S.; diverse reasons that lead people to leave their homelands. Common and unique challenges of resettlement in the U.S. Clinical social work interventions and policy issues will be explored.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 683 - Issues in Urban Child Welfare (3)

Understanding interrelationships between clinical social work practice and social welfare policies in the field of urban child welfare. Exploration of topics, such as child abuse and neglect, foster care, kinship care, adoption, and day care from historical and contemporary political, cultural, legal, and social work perspectives.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SWK 684 - Mass Violence: Dynamics of Helping Urban Populations (3)

Role of the social work profession in helping urban populations vulnerable to mass violence and terrorism, and those who have been affected by it. Clinical interventions with people experiencing trauma, preventive strategies, and selfcare for social workers are studied, as are social welfare policies and issues related to social justice.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 685 - Gender Issues and the Practice of Social Work

 (3)Examination of the ways in which sex roles, gender relations, and identity development are constructed and experienced by individuals in contemporary urban societies. Issues emerging from the intersection of ethnicity, race, class, and sexuality with gender and their implications for clinical social work practice are explored.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 686 - Social Work Practice with Urban Older Adults

 (3)Study of knowledge, values, and skills required for clinical, supervisory, administrative, and policy practice in diverse urban gerontological social work settings.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 687 - Social Work in Urban Schools (3)

Social work practice with students, families, school administration, and the community in urban school settings. An emphasis on the impact of policies and programming affecting delivery of social services in the schools. Special attention paid to diverse urban populations in school systems.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 688 - Social Work Practice with Substance Abusing Clients (3)

An exploration of social work with substance abusing clients in an urban environment. Prevention, treatment, and policy issues will be addressed. This course will focus on the biological, psychological, social, and spiritual etiology of substance abuse problems based upon a range of theories and empirical research.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 689 - Social Work Practice with Military Service Personnel, Families and Communities (3)

Social work practice with active duty military personnel, veterans, their families, and communities. This course will examine the unique challenges and opportunities for the social work profession in providing services and promoting policies reflecting social justice in the military and after discharge. Exploration of the rich historical relationship between military service, the understanding of relevant psychiatric diagnosis, the emergence of social welfare policies, and the development of social work as a profession.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 690 - Social Work Practice with Children and Adolescents in an Urban Environment (3)

This course focuses on social work practice with urban children and adolescents, utilizing an ecological systems perspective. Emphasis is placed on knowledge, skills and values in engagement, assessment and intervention. Ethical issues associated with services to children and adolescents are explored.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

SWK 691 - Social Work with LGBT Individuals and their Families: Practice and Policy Issues (3)

Practice issues with LGBT clients, and policy and social issues affecting the lives of LGBT populations in the U.S. and internationally are studied. Resilience of LGBT populations in the face of societal stigma and oppression is explored.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 692 - Social Work and Substance Abuse: Theories and Interventions (3)

Numerous theoretical models of addiction, chemical dependency assessment tools, and substance abuse treatment interventions useful in social work practice are studied. Addiction services and prevention programs for adults, youth, and families are explored. Basic concepts of social, political, and cultural systems and their impact on substance use are addressed.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SWK 693 - Understanding Hispanic/Latino Communities: Implications for Social Work Practice (3)

The origins and histories of various Hispanic/Latino/a communities in the United States and their implications for social work practice. Group demography, history, strategies for survival, the immigration experience, and other significant experiences important to consider when addressing the social needs of Hispanic/Latino/a populations.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.
SWK 694 - Social Work Interventions with Diverse Urban Hispanic/Latino Individuals, Groups, Families, and their Communities. (3)
Emphasis on the strengths perspective, and values, knowledge, and skills needed for social work practice with diverse urban Hispanic/Latino/a individuals, groups, families and communities. Practice implications of inter- and intragroup differences. Impact of discrimination and oppression in
understanding and assessing needs and in developing culturally competent interventions.

Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 707 - Understanding Clinical Assessment and Diagnosis (3)

The third course in the Human Behavior sequence, Understanding Clinical Assessment and Diagnosis, builds on the understanding of human development and diversity developed in the first two courses and focuses on an understanding of mental health. The goal in this course is to further elaborate on and apply theoretical frameworks supported by empirical evidence to compare and synthesize multiple sources of knowledge in a mental health context; and to foster integration of social work knowledge and skills

Prerequisite: SWK 606, SWK 611 and SWK 671.
Requirement Designation: Graduate Non-Liberal Arts.
Offered: Fall-Spring.

## SWK 713 - Advanced Social Work Practice in the Urban Environment I (3)

This is the first course in the two-semester advanced integrated practice sequence. The course highlights an advanced generalist approach with individuals across practice settings with an emphasis on the application of practice skills, values, and knowledge in urban environments. This course also serves to deepen students' understanding of social work in agency-based practice settings and in the larger community context. In this course, students will also be taught SBIRT (Screening, Brief Intervention, and Referral Treatment for substance using clients) according to the U.S. government SAMHSA grant received by the Lehman College Department of Social Work.

Prerequisite: SWK 606, SWK 612, SWK 672, SWK 707. Corequisite: SWK 727, SWK 773. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 714 - Advanced Social Work Practice in the Urban Environment II (3)

This course integrates the knowledge, skills, professional values and ethics necessary for effective advanced generalist social work practice with individuals, families, groups, communities, and organizations, in the urban environment. Through the Capstone Project, particular attention is given to integrating practice, research, policy, and human behavior content to explore an issue and share the results with a broader community, thus furthering the knowledge base and enhancing possibilities for social change.
Prerequisite: SWK 713, SWK 773, SWK 747. Corequisite: SWK 729, SWK 774, SWK 745. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 727 - Supervision in Agency-Based Practice (3)

Principles of agency-based supervision in a variety of practice settings. Administrative, clinical, and educational functions; concepts of power, authority, and accountability; ethical and clinical issues; skills and self awareness; staff development; and evaluation.

Corequisite: SWK 713, SWK 773, SWK 707. Requirement Designation: Graduate Non-Liberal Arts. Offered: FallSpring.

## SWK 729 - Administration in Urban Agencies (3)

This course contributes to the preparation of professional social workers as leaders in social service agencies in urban communities. It focuses on the knowledge, skills, professional values and ethics necessary for effective administration of public and private social services organizations with the philosophy that well run organizations support quality service delivery and client outcomes. The course content is guided by the need for social service agencies to be responsive to the needs of diverse clients, especially populations-at-risk, and the professional principle of social justice as a guide to administrative decisionmaking.
Course content will include: understanding leadership and mission; understanding organizational development and capacity; designing and structuring service organizations; funding sources; developing and maintaining a diverse staff; understanding the relationship of the organization to the community; program evaluation, analysis and continuous quality improvement; and examining ethical dilemmas.

Prerequisite: SWK 727, SWK 747. Corequisite: SWK 714, SWK 774, SWK 745.. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 745 - Social Welfare Policy Practice (3)

This course completes the social welfare policy sequence, building on the knowledge, skills, and values of the previous courses, Social Welfare Policy and Programs (SWK 639) and Social Welfare Policy Analysis (SWK 643). Reflecting the mission of the Lehman College MSW Program, the course helps students become effective change agents by influencing, formulating, and advocating for social welfare policies that are consistent with the value of social justice and ensure that social services meet the needs of recipients. This course has particular emphasis on impacting policies affecting urban populations.
Prerequisite: SWK 612, SWK 672, SWK 643. Corequisite: SWK 774. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 747 - Social Work Research II (3)

Design of research instruments, collection of data, and descriptive and inferential statistical analysis of data using S.P.S.S. Submission of a research proposal that seeks to contribute to social work knowledge. The proposal will include an understanding of diversity and/or the needs of atrisk populations in the urban environment.
Prerequisite: SWK 646. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 773 - Fieldwork and Seminar III (5)

300-hour supervised internship in a practice area different from Fieldwork and Seminar I and II; advanced standing students enter Fieldwork and Seminar III. Development of advanced integrated social work practice through clinical practice, supervision, administration, research, and policy practice assignments. Integration of classroom content with agency practice.
Prerequisite: SWK 612, SWK 672. Corequisite: SWK 713, SWK 727, SWK 707. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## SWK 774 - Fieldwork and Seminar IV (5)

Students complete 320 hours of fieldwork in a social service agency as arranged by the Program. Students integrate social work knowledge, values and skills as they provide culturally sensitive services to diverse urban populations. The Fieldwork Seminar component of this course is designed to integrate classroom content with their agency practice. Students are required to use SBIRT (Screening, Brief Intervention, and Referral to Treatment) with their clients in their field placement unless they are told by their field instructor that they cannot use it or if there are no appropriate opportunities to use it in the field setting.
Prerequisite: SWK 713, SWK 773, SWK 747. Corequisite: SWK 714, SWK 745, SWK 729. Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

## THE - Theatre

## THE 796-Special Problems (3)

(May be reelected for credit up to maximum of 6 credits.) Directed study under supervision of a member of the faculty.
Requirement Designation: Graduate Non-Liberal Arts. Offered: Fall-Spring.

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Sandra Morrison, Admin. Coord. (Asst. to Higher Ed. Officer): B.S., Fordham Univ.

Yvette Rosario, Senior Registrar (Higher Ed. Officer): B.S., Lehman Coll.; M.A., Queens Coll.
Vera Senese, Dir., Fin. Aid (Higher Ed. Officer): B.A., M.S., Fordham Univ.

## Academic Advisement

Lisa Moalem, Dir., Academic Advisement (Higher Ed. Officer): B.A., Brandeis Univ.; Ed.M., Columbia Univ. Teachers Coll.

Dyan Atkins, Academic Advisor (Higher Ed. Asst.): B.A., Iona Coll.; M.S.Ed., Long Island Univ.
Denise Sands Baez, Academic Advisor (Higher Ed. Asst.): B.A., M.A., Lehman Coll.

Scott Calvin, Academic Advisor (Higher Ed. Asst.): B.A., Univ. of California; Ph.D., CUNY Grad. Cent.
Eliza De La Cruz, Sen. Academic Advisor (Higher Ed. Asst.): A.A.S., Bronx Comm. Coll.; B.A., M.S., Lehman Coll.

Crystal DeFour, Academic Advisor (Higher Ed. Asst.): B.S., SUNY Brockport; M.A., SUNY Binghamtom
Mikhail Kaler, Academic Advisor (Higher Ed. Asst.): B.A., Ramapo Coll.; M.B.A., Mercy Coll.

Rafael Rosado, Academic Advisor (Higher Ed. Asst.): B.A., M.H.R., Univ. of Oklahoma; M.S.Ed., Lehman Coll.

Marc Ward, Academic Advisor (Higher Ed. Assoc.): B.A., Antioch Coll.; M.A., New York Univ.

Academic Standards and Evaluation
Liliana Calvet, Dir. (Higher Ed. Officer): B.A., Lehman Coll.; M.A., New York Univ.

Linda J. Martin, Academic Standards Advisor (Higher Ed. Asst.): B.A., Lehman Coll.; M.P.A., Baruch Coll.; M.S.Ed., Lehman Coll.

## Academic Testing and Scholarships

Oscar Rigamonty, Senior Testing Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

ACE (Accelerate, Complete, and Engage)
Mikhail Kaler, Dir., ACE (Research Foundation): B.A., Ramapo Coll.; M.B.A., Mercy Coll.

Delwing B. Gaines, ACE Academic Advisor (Research Foundation): B.S., St. Thomas Aquinas Coll.; M.S. Long Island Univ.
Chelsea Dash, ACE Academic Advisor (Research Foundation): B.S., Lehman Coll.

Ashley Walker, ACE Career Specialist (Research Foundation): B.A., Coll. Of Mount St. Vincent.; M.S.Ed., Lehman Coll.

## Admissions and Recruitment

Laurie Austin, Dir. (Higher Ed. Officer): B.A., Manhattanville Coll.; M.A., Columbia Univ.

Peter Engel, Assoc. Dir. (Higher Ed. Officer): B.A., Univ. of New Hampshire.

Valerie Brown, Assoc. Dir. (Higher Ed. Assoc.): B.S., Wheaton Coll.

Gloria Figueroa, Processing Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

Jose Mancebo, Assoc. Dir. (Higher Ed. Assoc.): B.B.A., Lehman Coll.

Erica Morales, Admissions Counselor (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

Miguel Pacheco, Asst. Dir. (Asst. to Higher Ed. Officer): B.A., City Coll.

Aurea Rodriguez, Asst. Dir. (Higher Ed. Asst.): B.A., Lehman Coll.

## College Now Program

David Gantz, Dir. (Higher Ed. Officer): B.A., New York Univ., M.A., CUNY Grad. Cent.

Griselda Santiago, Coord. (Higher Ed. Assoc.): B.S, Mercy Coll.; M.S., Lehman Coll.

Tracy Mejia, Program Asst. (Asst. to Higher Ed. Officer): B.A., York Coll.

Roberto E. Ventura, Campus Field Coord., CUNY Explorers (Asst. to Higher Ed. Officer): B.F.A., Lehman Coll.
Coordinated Freshman Programs (CFP) and English Composition and ESL

Steven Wyckoff, Dir., CFP, Engl. Composition, ESL (Higher Ed. Officer): B.A., Lehman Coll.; M.A., New York Univ.
Zenaida Bough, Asst. Dir., Freshman Year Program (Higher Ed. Asst.): B.A., Lehman Coll.

## Enrollment Services and Communications

Juan Luna, Dir. (Higher Ed. Officer): B.S., Lehman Coll.; M.S., School of Professional Stud.

Jennifer Kallicharan, Enrollment Specialist (Higher Ed. Asst.): B.A., Lehman Coll.

## Financial Aid

Marie Gonzalez, Assoc. Dir., FA Operations \& Title IV Compl. (Higher Ed. Assoc.): B.A., Lehman Coll.
Eileen Pretzel, Assoc. Dir., Loans \& System Mgmt. (Higher Ed. Assoc.): B.A., M.S., Hunter Coll.

Nick Simos, Assoc. Dir., Fin. Aid Systems (Higher Ed. Assoc.): B.S., St. John's Univ.; M.S. Fordham Univ.

Dominick Ciaccia, Financial Aid Specialist (Higher Ed. Asst.): B.A., John Jay Coll. of Criminal Justice; M.S. Lehman Coll.

Yvette Orench-Negron, Financial Aid Specialist (Higher Ed. Asst.): B.A., Hunter Coll.; M.S., Lehman Coll.
Rosa Torres, Financial Aid Specialist (Higher Ed. Asst.): B.S., Lehman Coll.; MPA, John Jay Coll. of Criminal Justice

Carmen Laffranchini, Financial Aid Specialist (Higher Ed. Asst.): B.S., CUNY School of Professional Studies

Iliya Tynan, Financial Aid Specialist (Higher Ed. Asst.): B.A., M.A., Brooklyn Coll.

Josh Pacheco, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.S., B.A., City Coll. of New York
Darysa Abreu, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.A., M.S.W., Lehman Coll.

Ramona Texidor, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.
Paulette McCants, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.A., Hunter Coll.

Miriam Rivera, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.
Brenda Sanchez, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

Tania Collado-Contreras, Financial Aid Coord. (Asst. to Higher Ed. Officer): B.S., Antillean Adventist Univ.

## Gateway To Graduation

Gina Immucci, Deputy Dir. (Higher Ed. Assoc.): B.A., Univ. of Central Florida; M.S. Florida Atlantic Univ.

Wanda Chen, Academic Advisor (Higher Ed. Asst.): B.A. Stony Brook Univ. SUNY; M.A. New York Univ.

## Graduate Studies

Takiyah A. Ali, Deputy Dir., Grad. Studies \& Success Initiatives (Higher Ed. Assoc.): B.S., Mount Saint Mary Coll.; M.S., Columbia Univ.

Marc Ward, Pre Graduate Advisor (Higher Ed. Assoc.): B.A., Antioch Coll.; M.A., New York Univ.

## Instructional Support Services

Althea Forde, Sr. Dir. of Academic Programs and Dir., Instructional Support Services (Higher Ed. Officer): B.A., Coll. of the Holy Cross; M.Ed., Harvard Univ..; Ed.D., Univ. of Pennsylvania.

Marisol Jimenez, Assoc. Dir. (Higher Ed. Assoc.): B.A., Univ at Albany, SUNY; M.A., Purdue Univ.; Ed.M., Teachers Coll., Columbia Univ.

Lisa Estreich, Writing and Literacy Coord., Science Learning Center (Higher Ed. Asst): B.A., Harvard Univ., M.A., M.Phil., Columbia Univ.

Ainsley Parkinson, Coord., Science Learning Center (Higher Ed. Asst.): B.S., State Univ. of New York at Binghamton; M.S., Lehman Coll.; M. Phil., Ph.D., CUNY Grad. Center.

## Pathways to Student STEM Success Program

Christopher Milton, Project Dir., Pathways to Student STEM Success Program: B.S., SUNY Buffalo State Coll.

Rafael Gonzelez, Campuses Dir., Pathways to Student STEM Success Program: B.A., Lehman Coll.

Lyda Williams, Academic Advisor, Pathways to Student STEM Success Program: B.A., Lehman Coll.; Ph.D., Albert Einstein Coll. of Medicine
Felicita Reynoso, Academic Advisor, Pathways to Student STEM Success Program: B.A., Lehman Coll.; M.S.Ed., Long Island Univ.
Bernice Fisher, Career Advisor, Pathways to Student STEM Success Program: B.A., SUNY Binghamton; M.S.W., Hunter Coll.

## Registrar

John Lucente, Registrar (Higher Ed. Officer.): B.S., Fordham Univ.

Adeleke Akano, Undergraduate Graduation Specialist (Higher Ed. Asst.): B.B.A., M.S., Lehman Coll.
Miguel Barragan, Enrollment Coord. (Asst. to Higher Ed. Officer): B.S., Lehman Coll.
Michelle Bermudez, Enrollment Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.
Denetra Christian, Asst. Registrar (Higher Ed. Asst.): B.S., Brooklyn Coll.; M.S., Lehman Coll.
Marilyn DeCastro, Undergraduate Graduation Specialist (Higher Ed. Asst.): B.B.A., M.A., Lehman Coll.
Sheniqua Fleming, Graduate Graduation Specialist (Higher Ed. Asst.): B.A., SUNY Oswego; M.A., Lehman Coll.
Jean Geiger, Scheduling Processor (Higher Ed. Asst.): B.A, Hunter Coll.; M.A., Queens Coll.
Milagros Gonzalez-Gallardo, Scheduling Mgr. (Higher Ed. Assoc.): B.A., M.S.B., Lehman Coll.
Jacob Ortiz, Undergraduate Graduation Specialist (Higher Ed. Asst.): B.A., John Jay Coll.
Rachel Negrón, Enrollment Coord. (Asst. to Higher Ed. Officer): B.A., M.S., Lehman Coll.

Daniel Nicasio, Master Scriber (Higher Ed. Assoc.): B.A., Baruch Coll.; M.S., The New School.
Maria Ramirez, Admin. Coord. (Asst. to Higher Ed. Officer): B.A., M.S., Lehman Coll.

Nelsy Ramos, Undergraduate Graduation Specialist (Higher Ed. Asst.): B.B.A., M.S.B., Lehman Coll.
Carmen Rodriguez, TAP Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.
Rudranauth Nelson Tulsiram, TAP Certifying Officer (Higher Ed. Assoc.): B.S., Lehman Coll.

## SEEK (Searching for Evaluation, Education and Knowledge) Program

Althea Forde, Admin. In Charge., SEEK (Higher Ed.
Officer): B.A., Coll. of the Holy Cross; M.Ed., Harvard Univ.; Ed.D., Univ. of Pennsylvania.
Robert Cole, SEEK Counselor (Higher Ed. Assoc.): B.A, Springfield Coll.; M.S.W., Hunter Coll; M.Div., Alliance Theological Seminary.
Nancy Colon, SEEK Academic and Technology Coord. (Asst. to Higher Ed. Officer): B.S., Fordham Univ.; M.A., Columbia Univ.; C.A.S., SUNY New Paltz.

Alisa Cooper, Spain, TRIO Counselor Advocate/ SEEK, PartTime Non-Teach. Adjunct/Counselor: M.S., Mercy Coll.
Alex Cruz, Dir., TRiO Pathways to Success (Research Foundation): B.A., Psychology, Lehman Coll., M.A., Hunter Coll.
Diane Dellacorte, SEEK Counselor (Higher Ed. Asst.): B.S., Mercy Coll.; M.S., Long Island Univ.
Candida Hernández, SEEK Counselor (Higher Ed. Asst.): M.S., The Coll. of New Rochelle.

Lisa Jones, SEEK Counselor (Lect.): M.S., Mental Health Counseling \& M.S., Science in Counselor Education/School Counseling.
Pedro P. Luna, SEEK Counselor (Higher Ed. Assoc.): B.A., Hobart Coll.; M.S., Syracuse Univ.
Lida Mora, SEEK Counselor (Higher Ed. Asst.): B.A., Lehigh Univ.; M.S.W., Hunter Coll. School of Social Work.
Alberto Navarro, SEEK Counselor/Lect., (Doct.): B.A., M.A., The City Coll. of New York; M.S., Lehman Coll.; Ph.D., New York Univ.
Walter Valero, SEEK Program Manager, SEEK (Higher Ed. Assoc.): M.L.S., Queens Coll.; M.S., Manhattanville Coll.

## Strategic Persistence Initiatives

Ronald L. Banks, Jr., Dir. (Higher Ed. Officer): B.A., Bowdoin Coll.; M.A., Bowling Green State Univ.

Eliza De La Cruz, Admissions Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

## Student Success Initiatives

Christopher J. Buonocore, Dir. (Higher Ed. Officer): B.A., Queens Coll.; M.S.Ed., Baruch Coll.

## OFFICE OF THE VICE PROVOST FOR ACADEMIC PROGRAMS

Vincent Prohaska, Interim Vice Provost for Academic Programs; Prof., Psych.: B.S., Adelphi Univ.; Ph.D., Univ. of Chicago
Carole Weisz, Assoc. Dir., Academic Programs/LEH (Higher Ed. Assoc.); Adj. Asst. Prof.: B.A., Hunter Coll.; Ph.D., Purdue Univ.

Sophia Diamantis-Fry, Acad. Affairs Mngr. (Higher Ed. Assoc.): B.A., Lehman Coll.; M.A., Hunter Coll.

## Office of Online Education

Olena Zhadko, Dir. (Higher Ed. Officer): B.A., Nizhyn Gogol State Univ., M.Ed., Ph.D., Univ. of Missouri-St. Louis.

Susan Ko, Faculty Dev. Consultant; Clin. Faculty, Hist.: B.A. Univ. of Washington; M.A., Ph.D., Yale Univ.

Naliza Sadik, Ed. Technologist $\mid$ Instr. Designer: B.A., Lehman Coll.

## Macaulay Honors College at Lehman and Lehman Scholars Program

Gary Schwartz, Dir., Macaulay Honors Coll. at Lehman and Lehman Scholars Program; Prof., Langs. \& Lits .: A.B., Columbia Coll.; B.A., M.A., Jesus Coll., Cambridge Univ.; Ph.D., Columbia Univ.

Christopher Bonastia, Assoc. Dir., Macaulay Honors Coll. at Lehman and Lehman Scholars Program; Assoc. Prof., Soc.: B.A., Univ. of Virginia; M.A., Ph.D., New York Univ.

Lena Tuck, Senior Advisor (Higher Ed. Asst.): B.A., State Univ. of New York at Binghamton; M.A., Teachers Coll., Columbia Univ.

## Quantitative Reasoning

Mia Budescu, Co-Coord., QR Prog.; Asst. Prof., Psych.: Ph.D., Temple Univ.
Naomi Spence, Co-Coord., QR Prog.; Assoc. Prof., Soc.: B.A., Univ. of New Orleans; M.S., Ph.D., Florida State Univ.

## Writing Across the Curriculum

Tiffany DeJaynes, Co-Coord., Writing Across the Curriculum; Asst. Prof., Middle \& H.S. Ed.: B.A., William

Jewell Coll.; M.A., Univ. of Kansas; Ed.D., Teachers Coll., Columbia Univ.

Vani Kannan, Co-Coord., Writing Across the Curriculum; Asst. Prof., Engl.: B.A., Barnard Coll.; M.A., State Univ. of Col.; Ph.D., Syracuse Univ.

## Office of Prestigious Awards

Alice Michelle Augustine, Dir., Office of Prestigious Awards; Adj. Asst. Prof., Engl.: B.A., Lehman Coll.; J.D., Loyola Univ.

## OFFICE OF THE VICE PRESIDENT FOR ADMINISTRATION

Rene Rotolo, Interim Vice Pres., Campus Planning \& Facilities: B.F.A., Fashion Inst. of Tech.; M.P.A., Baruch Coll.
Diane B. Clarke, Dir. of Administrative Operations (Higher Ed. Officer): B.S, M.B.A., New York Institute of Tech.

## Budget and Planning

Bethania Ortega, Dir. (Higher Ed. Officer): B.S., Lehman Coll.

## Campus Planning and Facilities

Rene Rotolo, Asst. Vice Pres., Campus Planning \& Facilities: B.F.A., Fashion Inst. of Tech., M.P.A., Baruch Coll.

## Environmental Health and Safety

Ilona Linins, Environmental Health \& Safety Officer (Higher Ed. Assoc.): B.S., Manhattan Coll.; M.P.H., Hunter Coll.
Shaldon Watson, Chemical Hygiene Office (Higher Ed. Asst.): B.S., State Univ. of New York at Stony Brook; M.P.H., Lehman Coll.

## Financial Operations

Gina Harwood, Asst. Vice Pres. for Financial Operations: B.A., SUNY Albany; M.P.A., Syracuse Univ.

Temesgen Gebrekidan, $C P A$, Controller, General Accounting (Higher Ed. Officer): B.S., New Jersey City Univ.

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Samantha Cancel, Finance Coord., Accounts Payable (Asst. to Higher Ed. Officer): B.A., Lehman Coll.
Kelly Phung, Enrollment Bursar Dir., Bursar (Higher Ed. Officer): B.S., Lehman Coll.
Christopher Mowatt, Enrollment Bursar Mngr., Bursar (Higher Ed. Assoc.): B.S., SUNY New Paltz
Richard Rolle, Enrollment Bursar Specialist, Bursar (Higher Ed. Asst.): B.S., SUNY Purchase
Karlene Johnson, Enrollment Bursar Coord., Bursar (Asst. to Higher Ed. Officer): B.F.A., Lehman Coll.

## Human Resources

Eric Washington, Dir. (Higher Ed. Officer): B.A., Pace Univ.; J.D., Columbia Univ.

## Lehman Center for the Performing Arts

Eva Bornstein, Exec. Dir. (Higher Ed. Officer): B.A., York Univ.

## Lehman Stages

Dante Albertie, Dir. (Higher Ed. Officer): B.A., M.A., Purchase Coll.

Public Safety
Fausto Ramirez, Dir. (College Security Dir. L/4): B.S., John Jay Coll.

## OFFICE OF THE VICE PRESIDENT FOR INSTITUTIONAL ADVANCEMENT

Susan Ebersole, Vice Pres., Institutional Advancement: B.A., Goshen Coll.; M.F.A., Hunter Coll.
Danielle Jean-Marie, Chief of Staff (Higher Ed. Officer): B.A., City Coll. of New York; M.S.Ed., Cambridge Coll.

Fredrick Gilbert, Deputy Dir., Herbert H. Lehman College Foundation and Major Gifts Officer (Higher Ed. Officer): B.A., Amherst Coll.; M.S., New School for Soc. Research.

Ronnie Boriskin, Dir. of Corporate and Foundation Engagement: B.A., Hunter Coll.; M.A., Queens Coll.
Tara Regist Tomlinson, Dir. of Advance Initiatives (Higher Ed. Officer): B.A., Skidmore Coll.; M.P.A., Baruch Coll.

Felix Robert Pagan, Assoc. Dir. of Alumni Engagement and Annual Fund (Higher Ed. Assoc.): B.S., New York Univ.

Dariana Reyes, Database Coord. (Asst. to Higher Ed. Officer): B.A., Lehman Coll.

## Media Relations and Publications

Karen Crowe, Asst. Vice Pres. (Higher Ed. Officer): B.A., New York Univ.

Colleen Lutolf, Dir. of Media Relations and Content Strategy: B.A., Monclair Univ.
Yeara Rosenthal, e-Media Communications, Mngr. (Higher Ed. Assoc.): B.A., Lehman Coll.

Thomas Staudter, Sen. Communications Specialist (Asst. to Higher Ed. Officer): B.A., Univ. of Penn.; M.A., John Hopkins Univ.
Lisa A. Hirschfield, Communications and Res. Specialist (Asst. to Higher Ed. Officer): M.F.A., M.Phil, New York Univ.

Erika Reinhart, Communications and Pub. Design Specialist (Asst to Higher Ed. Officer): B.A., Cabrini Coll.; M.A., New York Univ.

## Art Gallery

Bartholomew F. Bland, Exec. Dir. (Higher Ed. Officer): B.A., Florida Atlantic Univ.; M.A., George Washington Univ.; M.A., Hunter Coll.

## OFFICE OF THE VICE PRESIDENT FOR STUDENT AFFAIRS

José Magdaleno, Vice Pres. for Student Affairs: B.A., State Univ. of New York at Binghamton; M.S., Columbia Univ.

Stanley A. Bazile, Dean of Students: B.A., M.S.W., Stony Brook Univ.; Ph.D., Pennsylvania State Univ.
Conrad Walker, Dir. of Strategic Initiatives \& Special Projects (Higher Ed. Officer): B.S., Morgan State Univ.; M.A., New York Univ.; Ed.M., Teachers Coll., Columbia Univ.; M.Phil., The New School

Janelle Hill, Confidential Exec. Officer (Higher Ed. Officer): B.S., Nazareth Coll.; M.S., State Univ. of New York at Cortland; M.P.A., Univ. of New Haven.
APEX / Athletics
Martin Zwiren, Dir. of Athletics/APEX (Higher Ed. Officer): B.S., Univ. of Dayton; M.S.Ed.; Temple Univ.; Ed.D., Fordham Univ.

Lenn Margolis, Sports Info. Dir. (Higher Ed. Asst.): M.B.A., Hofstra Univ.
Peter J. Kiernan, Aquatics Dir. (Higher Ed. Assoc.): B.A., M.S., Lehman Coll.

Robert Harris, Dir., Fitness Center (Higher Ed. Assoc.): B.A., State Univ. of New York at Cortland; M.A., Univ. of Conn.

## Campus Life

Michael E. Sullivan, Dir.: B.A., Stonehill Coll.; M.Ed., Fordham Univ.

Suzette Ramsundar, Assoc. Dir. (Higher Ed. Assoc.): B.A., Hunter Coll.; M.S.Ed., M.S.O.L., Lehman Coll.
David Charcape, Asst. Dir.: B.S., Lehman Coll.
Nathaniel C. Gasque, Asst. Dir.: B.B.A., Lehman Coll.
Career Exploration \& Development Center
Bascillia Toussaint, Interim Dir./ Employer Rel. Mgr., Career Exploration \& Development Center (Higher Ed. Assoc.): B.A., Hunter Coll.; M.A., Columbia Univ.
Luisiana Baez-Canela, Internship Coord. (Higher Ed. Asst.): B.A., Hunter Coll.; M.P.A., Baruch Coll.

Angela Ho, Career Adviser (Higher Ed. Asst.): B.A., Lehman Coll.; M.S.Ed., Baruch Coll.

Diane S. Machado, Career Adviser (Higher Ed. Asst.): B.S., Fordham Univ.; M.A., Columbia Univ.

Navisha Maharaj, Career Adviser (Higher Ed. Asst.): B.A., Queens Coll.; M.S., Mercy Coll.
Nicole McFarlane, Career Adviser (Higher Ed. Asst.): B.S., St. John's Univ.; M.S., M.A., Columbia Univ.

## Counseling Center

Karen Smith-Moore, Dir. (Higher Ed. Officer): B.A., Hunter Coll.; M.S.W., Hunter Coll.

Megan Wilen, Counselor (Higher Ed. Assoc.): B.A., Binghamton Univ.; M.S.W., Columbia Univ.

## Child Care Center

Dawn Barton, Dir. : B.A., Pace Univ.; M.S., Coll. of New Rochelle

## International Student Services

Ann O'Sullivan, Coord. (Higher Ed. Asst.): B.S., M.B.A., Iona Coll.

## Student Disability Services

Merrill D. Parra, Dir. (Higher Ed. Officer): B.A., Queens Coll.; M.S.W., Columbia Univ.
Pedro Laureano, Asst. Tech. Mngr: B.A., Lehman Coll.

## Student Health Center

Cindy Kreisberg, Dir.: B.S., Syracuse Univ.; R.P.A.-C, Pennsylvania State Univ.

## OFFICE OF THE VICE PRESIDENT FOR INFORMATION TECHNOLOGY

Ronald M. Bergmann, Vice Pres. of Information Technology and Chief Info. Officer: B.S., Union Coll.; M.S., The New School

Ediltrudys Ruiz, Asst. Vice Pres. of Information
Technology: B.B.A., M.S., M.S.Ed., Baruch Coll.

## Faculty

## Distinguished Professors

The Board of Trustees designates full professors in The City University of New York as "distinguished" for a body of work that has advanced understanding and defined new directions of inquiry or creativity. Lehman College is proud that five members of its current faculty have achieved this selective rank, reserved for a very small group of highly influential scholars and artists.

## Laird W. Bergad

Distinguished Professor, Latin American, Latino \& Puerto Rican Studies

Eugene Chudnovsky
Distinguished Professor, Physics \& Astronomy
John P. Corigliano
Distinguished Professor, Music
Joseph W. Dauben
Distinguished Professor, History
Victor Pan
Distinguished Professor, Mathematics \& Computer Science

## Permanent Instructional Staff (Teaching)

The faculty listing contains the names of the full-time instructional staff as of August 2019.

Ahmed, Siraj, Prof., Engl.: B.A., Univ. of Penn.; M.A., Ph.D., Columbia Univ.
Aisemberg, Gabriel, Asst. Prof., Biol. Sci.: M.Sci., Ph.D., Univ. of Buenos Aires-Argentina.

Alborn, Timothy, Prof., Hist.: B.A., Ph.D., Harvard Univ.
Alex, Jonathan, Lect., Soc. Wk.: B.A., Lehman Coll.; M.S.W., New York Univ. School of Soc. Wk.

Alexander-Street, Ayanna, Lect., Biol. Sci.: B.S., Univ. of Connecticut; Ph.D., CUNY Grad. Cent.
Allebban, Eman, Asst. Prof., Philos.: B.A., Univ. of Michigan, Dearborn; Ph.D., McGill Univ.

Almodovar, Diana, Asst. Prof., Speech-Lang.-Hearing Sci.: B.A., Lehman Coll.; M.A., Queens Coll., Ph.D., CUNY Grad. Cent.

Alonso, Orlando, Assoc. Prof., Middle \& High School Ed.: B.S., High Inst. of Pedagogy Felix Varela; M.A., City Coll. of New York; Ed.D., Columbia Univ.

Alto, Andrew, Instr., Health Sci.: B.S., M.A., Lehman Coll. Amarante, Sarswati, Sen. Lab. Tech., Chem: B.S., M.S., St. John's Univ.

Amend, Allison, Prof., Engl.: B.A, Stanford Univ.; M.F.A., Univ. of Iowa.
Anchordoqui, Luis, Prof., Phys. \& Astron.: B.S., Ph.D., Univ. Nacional de La Plata-Argentina.
Anderson, James, Assoc. Prof., Engl.: B.A., Washington Univ.; M.S., Columbia Univ.
Anekstein, Alyse M., Asst. Prof., Cslg., Ldrshp., Lit., \& Sp. Ed.: B.A., State Univ. of New York at Albany; M.S., Univ. of Nevada-Las Vegas; Ph.D., Idaho State Univ.

Arzola, Rebecca, Asst. Prof., Libr.: M.L.S., Pratt Inst.
Bacon, Michael, Assoc. Prof., Mus., Multimed., Theatre, and Dance: B.S., Lehman Coll.

Badillo, David, Assoc. Prof., Lat. Amer. \& Latino Stud.: B.A., Univ. of Cal. at Berkeley; Ph.D., CUNY Grad. Cent.

Baldwin, Barbara, Clin. Asst. Prof., Nurs.: Nursing Diploma, St. Elizabeth Hospital Sch. of Nurs.; B.S.N., SUNY New Paltz; M.S., Pace Univ.; Post-Master Pediatric Nurse Pract., Hunter Coll.; Post-Master Doc. of Nursing Practice, Brandman Univ.
Bamshad-Alavi, Maryam, Assoc. Prof., Biol. Sci.: B.S., M.S., Ph.D., Univ. of Mass.

Baraldi, Carole, Asst. Prof., Nurs.: B.S., Lehman Coll.; M.S. Long Island Univ.; Ed.D. Teachers Coll., Columbia Univ.
Barreras, Nicole, Coll. Lab. Tech., Art: B.S., Lehman Coll.
Battipaglia, Diana M., Prof., Mus., Multimed., Theatre, and Dance: B.S., M.S., Juilliard Sch.; D.M.A., Eastman Sch. of Music.

Bayne, Gillian, Assoc. Prof., Middle \& High School Ed.: B.S., Coll. of New Rochelle; M.A., New York Univ.; Ph.D., CUNY Grad. Cent.

Beck, Karin, Assoc. Prof., Langs. \& Lits.: M.A., Free Univ. of Berlin; M.Phil., Ph.D., Columbia Univ.
Behrman, Alison, Assoc. Prof., Speech-Lang.-Hearing Sci.: B.A., Univ. of Michigan; M.A., New York Univ., Ph.D., Columbia Univ.

Behrstock, Jason, Prof., Math.: B.A., Univ. of Cal. at Berkeley; Ph.D., State Univ. of New York at Stony Brook.
Belardo, John, Sr., Coll. Lab. Tech., Art: M.F.A., New York Acad. of Art.

Benefo, Kofi, Assoc. Prof., Soc.: B.A., Univ. of Ghana; M.A., Univ. of Iowa; Ph.D., Univ. of Mich.

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## Appendix

## Board of Trustees Rules and Regulations on Campus Conduct

## Rules and Regulations for the Maintenance of Public Order Pursuant to Article 129-A of the Education Law

The tradition of the University as a sanctuary of academic freedom and center of informed discussion is an honored one, to be guarded vigilantly. The basic significance of that sanctuary lies in the protection of intellectual freedoms: the rights of professors to teach, of scholars to engage in the advancement of knowledge, of students to learn and express their views, free from external pressures or interference. These freedoms can flourish only in an atmosphere of mutual respect, civility, and trust among teachers and students, only when members of the University community are willing to accept self-restraint and reciprocity as the condition upon which they share in its intellectual autonomy.
Academic freedom and the sanctuary of the University campus extend to all who share these aims and responsibilities. They cannot be invoked by those who would subordinate intellectual freedom to political ends, or who violate the norms of conduct established to protect that freedom. Against such offenders the University has the right, and indeed the obligation, to defend itself. We accordingly announce the following rules and regulations to be in effect at each of our colleges which are to be administered in accordance with the requirements of due process as provided in the Bylaws of the Board of Higher Education.
With respect to enforcement of these rules and regulations we note that the Bylaws of the Board of Trustees provide that:
"The president, with respect to his education unit, shall:
Have the affirmative responsibility of conserving and enhancing the educational standards of the college and schools under his jurisdiction;
Be the advisor and executive agent of the Board and of his respective College Committee and as such shall have the immediate supervision with full discretionary power in carrying into effect the Bylaws, resolutions, and policies of the Board, the lawful resolutions of the several faculties;

Exercise general superintendence over the concerns, officers, employees, and students of his educational unit."

## I. Rules

1. A member of the academic community shall not intentionally obstruct and/or forcibly prevent others from the exercise of their rights. Nor shall he interfere with the institution's educational processes or facilities, or the rights of those who wish to avail themselves of any of the institution's instructional, personal, administrative, recreational, and community services.
2. Individuals are liable for failure to comply with lawful directions issued by representatives of the University/college when they are acting in their official capacities. Members of the academic community are required to show their identification cards when requested to do so by an official of the college.
3. Unauthorized occupancy of University/college facilities or blocking access to or from such areas is prohibited. Permission from appropriate college authorities must be obtained for removal, relocation, and use of University/college equipment and/or supplies.
4. Theft from or damage to University/college premises or property, or theft of or damage to property of any person on University/college premises is prohibited.
5. Each member of the academic community or an invited guest has the right to advocate his position without having to fear abuse, physical, verbal, or otherwise from others supporting conflicting points of view. Members of the academic community and other persons on the college grounds shall not use language or take actions reasonably likely to provoke or encourage physical violence by demonstrators, those demonstrated against, or spectators.
6. Action may be taken against any and all persons who have no legitimate reason for their presence on any campus within the University/college, or whose presence on any such campus obstructs and/or forcibly prevents others from the exercise of their rights or interferes with the institution's educational processes or facilities, or the rights of those who wish to avail themselves of any of the institution's instructional, personal, administrative, recreational, and community services.
7. Disorderly or indecent conduct on University/collegeowned or controlled property is prohibited.
8. No individual shall have in his possession a rifle, shotgun, or firearm or knowingly have in his possession any other dangerous instrument or material that can be used to inflict bodily harm on an individual or damage upon a building or
the grounds of the University/college without the written authorization of such educational institution. Nor shall any individual have in his possession any other instrument or material which can be used and is intended to inflict bodily harm on an individual or damage upon a building or the grounds of the University/college.
9. Any action or situation which recklessly or intentionally endangers mental or physical health or involves the forced consumption of liquor or drugs for the purpose of initiation into or affiliation with any organization is prohibited.
10. The unlawful manufacture, distribution, dispensation, possession, or use of illegal drugs or other controlled substances by University students or employees in the workplace is prohibited. Employees of the University must also notify the College Personnel Director of any criminal drug statute conviction for a violation occurring in the workplace not later than five (5) days after such conviction.
11. The unlawful possession, use, or distribution of alcohol by students or employees on University/college premises or as part of any University/college activities is prohibited.

## II. Penalties

1. Any student engaging in any manner of conduct prohibited under substantive Rules 1 to 11 shall be subject to the following range of sanctions as hereafter defined: admonition, warning, censure, disciplinary probation, restitution, suspension, expulsion, ejection, and/or arrest by the civil authorities.
2. Any tenured or non-tenured faculty member, or other member of the instructional staff, or member of the classified staff engaging in any manner in conduct prohibited under substantive Rules 1 to 11 shall be subject to the following range of penalties: warning, censure, restitution, fine not exceeding those permitted by law or by the Bylaws of the City University of New York, or suspension with/without pay pending a hearing before an appropriate College authority, dismissal after a hearing, ejection, and/or arrest by the civil authorities, and, for engaging in any manner in conduct prohibited under substantive rule 10 , may, in the alternative, be required to participate satisfactorily in an appropriately licensed drug treatment or rehabilitation program. A tenured or nontenured faculty member, or other member of the instructional staff, or member of the classified staff engaging in any manner in conduct prohibited under substantive Rules 1 to 11 , shall be entitled to be treated in accordance with applicable provisions of the Education Law, or the Civil Service Law, or the applicable collective bargaining agreement, or the Bylaws or written policies of the City University of New York.
3. Any visitor, licensee, or invitee engaging in any manner in conduct prohibited under substantive Rules 1 to 11 shall be subject to ejection, and/or arrest by the civil authorities.
4. Any organization which authorizes the conduct prohibited under substantive rules $1-11$ shall have its permission to operate on campus rescinded.

Penalties 1-4 shall be in addition to any other penalty provided by law or the City University Trustees.

## Sanctions Defined:

1. Admonition. An oral statement to the offender that he has violated University rules.
2. Warning. Notice to the offender, orally or in writing, that continuation or repetition of the wrongful conduct, within a period of time stated in the warning, may be cause for more severe disciplinary action.
3. Censure. Written reprimand for violation of specified regulation, including the possibility of more severe disciplinary sanction in the event of conviction for the violation of any University regulation within a period stated in the letter of reprimand.
4. Disciplinary Probation. Exclusion from participation in privileges or extracurricular University activities as set forth in the notice of disciplinary probation for a specified period of time.
5. Restitution. Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.
6. Suspension. Exclusion from classes and other privileges or activities as set forth in the notice of suspension for a definite period of time.
7. Expulsion. Termination of student status for an indefinite period. The conditions of readmission, if any is permitted, shall be stated in the order of expulsion.
8. Complaint to Civil Authorities.
9. Ejection. Bylaw Section 15.6

## Suspension or Dismissal.

The Board of Trustees reserves full power to dismiss or suspend a student, or suspend a student organization for conduct which impedes, obstructs, or interferes with the orderly and continuous administration and operation of any college, school, or unit of the university in the use of its facilities or in the achievement of its purposes as an educational institution.

The Chancellor or Chancellor's designee, a president or any dean may in emergency or extraordinary circumstances, temporarily suspend a student, or temporarily suspend the privileges of a student organization or group for cause, pending an early hearing as provided in bylaw section 15.3 to
take place within not more than seven (7) school days. Prior to the commencement of a temporary suspension of a student, the College shall give such student oral or written notice of the charges against him/her and, if he/she denies them, the College shall forthwith give such student an informal oral explanation of the evidence supporting the charges and the student may present informally his/her explanation or theory of the matter. When a student's presence poses a continuing danger to person or property or an ongoing threat of disrupting the academic process, notice and opportunity for denial and explanation may follow suspension, but shall be given as soon as feasible thereafter.

## Notice of Non-Discrimination

It is the policy of The City University of New Yorkapplicable to all colleges and units- to recruit, employ, retain, promote, and provide benefits to employees and to admit and provide services for students without discriminating on the basis of actual or perceived race, color, creed, national origin, ethnicity, ancestry, religion, age, sex, sexual orientation, gender, gender identity, marital status, partnership status, disability, genetic information, alienage, citizenship, military or veteran status, pregnancy, status as a victim of domestic violence/stalking/sex offenses, unemployment status, caregiver or familial status, prior record of arrest or conviction, or any other legally prohibited basis in accordance with federal, state and city laws. This policy is set forth in CUNY's Policy on Equal Opportunity and NonDiscrimination.

CUNY's Policy on Sexual Misconduct prohibits all forms of sexual misconduct, including sexual harassment, gender harassment and sexual violence. Inquiries concerning sexual misconduct or sex discrimination may be made to the individuals specified in that Policy or may be referred to the U.S. Department of Education, Office for Civil Rights.

It is also the University's policy to provide reasonable accommodations and academic adjustments when appropriate, to individuals with disabilities, individuals observing religious practices, individuals who have pregnancy or childbirthrelated medical conditions and victims of domestic violence/stalking/sex offenses. The process for addressing these issues is set forth in CUNY's Procedures for Implementing Reasonable Accommodations and Academic Adjustments.

Retaliation for reporting or opposing discrimination, cooperating with an investigation of a discrimination complaint, or requesting an accommodation or academic adjustment is also prohibited.

To access CUNY's Policy and Procedures on Equal

Opportunity and Non-Discrimination, Policy on Sexual Misconduct, and Procedures for Implementing Reasonable Accommodations and Academic Adjustments, please visit these links:

## CUNY Equal Opportunity and NonDiscrimination

http://www2.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/hr/policies-and-procedures/CUNYPolicy-Equal-Opportunity-and-Non-Discrimination-010115-procedures.pdf

## CUNY Policy on Sexual Misconduct

http://www2.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/legal-affairs/POLICY-ON-SEXUAL-MISCONDUCT-10.1.2015-with-links.pdf

Reasonable Accommodations and Academic Adjustments
http://www2.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/reasonable-accommodations-and-academic-adjustments/

The following persons have been designated at Lehman College to handle inquiries and complaints relating to CUNY's Policy on Equal Opportunity and NonDiscrimination and Policy on Sexual Misconduct and to ensure compliance with CUNY's Procedures for Implementing Reasonable Accommodations and Academic Adjustments:
Policy on Equal Opportunity and Non-Discrimination
Office of Compliance and Diversity, Shuster Hall, Room 356
Telephone (718) 960-8111
Dawn Ewing Morgan, Chief Diversity Officer/Title IX Coordinator
Email: dawn.ewing-morgan@lehman.cuny.edu
Maritza Rivera, Associate Director for Compliance and Diversity
Email: maritza.rivera@lehman.cuny.edu
Policy on Sexual Misconduct
Dawn Ewing Morgan, Chief Diversity Officer/Title IX
Coordinator
Shuster Hall, Room 356 Telephone (718) 960-8111
Email: dawn.ewing-morgan@lehman.cuny.edu

Fausto Ramirez, Public Safety Director
APEX, Room 109 Telephone (718) 960-8594
Email: fausto.ramirez@lehman.cuny.edu

José Magdaleno, Vice President for Student Affairs

Shuster Hall, Room 204 Telephone (718) 960-8241
Email: joseph.magdaleno@lehman.cuny.edu
Reasonable Accommodations and Academic Adjustments
Student Disability Services, Shuster Hall, Room
238 Telephone (718) 960-8111
Email: disability.services@lehman.cuny.edu
Reasonable Accommodations (Employment) and Domestic Violence in the Workplace Policy
Office of Human Resources, Shuster Hall, Room 230
Telephone (718) 960-8181
Eric Washington, Director of Human Resources
Email: eric.washington@lehman.cuny.edu
The following federal, state, and local agencies enforce laws against discrimination:

- New York City Commission on Human

Rights http://www1.nyc.gov/site/cchr/index.page

- New York State Division on Human

Rights http://www.dhr.ny.gov

- U.S. Equal Employment Opportunity

Commission http://www.eeoc.gov

- United States Department of Justice http://www.justice.gov/
- United States Department of Education Office for Civil Rights http://www2.ed.gov/ocr
A large-print version of the Notice of Non-Discrimination is available upon request in electronic and/or paper format from Lehman's Office of Compliance and Diversity.

The City University Of New York Policies And Procedures Concerning Sexual Assault, Stalking, And Domestic And Intimate Partner Violence Against Students

## I. Policy Statement

The City University of New York seeks to create and maintain a safe environment in which all members of the University community - students, faculty and staff - can learn and work free from the fear of sexual assault and other forms of violence. The University's policies on Workplace Violence and Domestic Violence and the Workplace apply to all acts of violence that occur in the workplace or that may spill over into the workplace. The University's Sexual Harassment Policy prohibits many forms of unwelcome conduct, including but not limited to, physical conduct of a sexual nature. This policy is specifically directed towards sexual assault, domestic and intimate partner violence and stalking committed against students on and off-campus.

CUNY wants all victims of sexual assault, stalking and domestic and intimate partner violence to know that the University has professionals and law enforcement officers who are trained in the field to assist student victims in obtaining help, including immediate medical care, counseling and other essential services. If the alleged perpetrator is also a member of the CUNY community, the college will take prompt action to investigate, and, where appropriate, to discipline and sanction the alleged perpetrator. CUNY urges all victims to seek immediate help in accordance with the guidelines set forth in this policy with the assurance that all information received from a complaint will be handled as confidentially as possible.
In order to eliminate sexual assaults and other forms of violence perpetrated against students, and to create a safe college community, it is critical to provide an appropriate prevention education program and have trained professionals to provide vital supportive services.
Accordingly, CUNY is committed to the following goals:

- Providing clear and concise guidelines for students to follow in the event that they or someone they know have been the victim of a sexual assault, domestic/intimate partner violence, or stalking.
- Assisting victims of sexual assault or abuse in obtaining necessary medical care and counseling, whether on or offcampus.
- Providing the most informed and up-to-date education and information to its students about how to identify situations that involve sexual assault, domestic and intimate partner violence, or stalking, and ways to prevent these forms of violence.
- Educating and training all staff members, including counselors, public safety officers and student affairs staff and faculty, to assist victims of sexual assault, domestic/intimate partner violence, or stalking.
- Ensuring that disciplinary procedures are followed in the event that the alleged perpetrator is a CUNY student or employee.


## II. Procedures For Reporting Incidents of Sexual Assault And Other Forms of Violence

Obtaining assistance after a student is sexually assaulted, stalked or is in an abusive relationship is extremely important and can involve different points of on-campus contact for students, faculty and staff, including the Public Safety Department, Women's/Men's Centers and Counseling Departments, and/or the Dean of Student Development/Student Affairs. Each provides different forms of assistance which together address many of the needs of survivors.

## Contact Law Enforcement Personnel Immediately

CUNY urges any student who has been the victim of a sexual assault or other act of violence or abuse, or any student or employee who has witnessed a sexual assault or other act of violence against a student, to immediately report the incident to the college Public Safety Department if the attack occurred on-campus, or to call 911 or go to the local NYPD precinct if the incident took place off-campus. Each college shall be provided with a list of emergency contact numbers as part of its orientation and training programs.

## Seek Immediate Medical Attention

It is critical that victims of a physical assault receive comprehensive medical attention as soon as possible. For a sexual assault in particular, immediate treatment and the preservation of evidence of the attack (i.e. retain the clothing worn during the attack and do not shower) is crucial to a criminal investigation. If a student believes that she/he may be the victim of date rape by being drugged, she/he should go directly to a hospital to receive a toxicology examination since such drugs only remain in a person's system for a short period of time. In all other circumstances, public safety and police personnel can assist the victim in obtaining medical care. Each college shall be provided with a list of local hospitals, some of which are designated as SAFE (Sexual Assault Forensic Examiner) hospitals that are specially equipped to handle sexual assaults and are trained to gather minute evidence from such assaults. Rape crisis advocates at emergency rooms are also trained to handle domestic violence. EMS will be directed to bring victims to a SAFE hospital at their request. Medical attention is critical not only to treat internal and external injuries and to combat the possibilities of sexually transmitted infections and/or pregnancy, but also to collect evidence that can be used against the alleged perpetrator. It is also vital to ongoing safety and recovery that victims receive emotional support and professional counseling as soon as possible after the attack.

## Seek On-Campus Assistance

CUNY encourages student victims to contact the Dean of Student Affairs/Student Development to obtain assistance in accessing medical and counseling services, or to make any necessary changes to the student's academic program or residential housing situation. Public Safety can assist victims getting to and from campus safely, filing a police report and obtaining an order of protection against the alleged perpetrator. Victims can also file a complaint with the College against an alleged perpetrator who is a student or employee of the University with the Dean of Student Affairs/Student Development and the Public Safety Office.

## Obtaining an On-Campus Advocate

Student victims of a sexual assault, stalking or domestic or intimate partner violence shall be provided with on-campus support in the form of an advocate from the Women's/Men's Center (if there is one on campus) or an appropriately trained counselor to assist them in handling the various aspects of their ordeal, such as: 1) explaining to victims their options of whether or not to report the incident to campus or law enforcement authorities; 2 ) providing guidance if they require medical attention; 3) providing guidance in obtaining crisis intervention and/or ongoing counseling services (or a referral to obtain the necessary services if such services are not available on campus); and 4) assisting victims throughout the College's disciplinary process if they choose to file a complaint against another student in connection with the incident.

## Handling Sexual Assault, Stalking and Domestic and Intimate Partner Violence Complaints On-Campus

The Colleges shall act promptly in response to information that a student has been sexually assaulted, or has been the victim of domestic or intimate partner violence or stalking by another member of the CUNY community. Upon receipt of a complaint, the College shall undertake an appropriate investigation. If it appears that there is sufficient evidence to warrant disciplinary charges against a student or staff member, such charges shall be brought pursuant to the appropriate University procedures or collective bargaining agreement. If the alleged perpetrator is a student and the matter is brought before a hearing, the victim and alleged perpetrator are entitled to the same opportunities to have others present and to be informed of the outcome of the proceedings. The victim is entitled to a report of the results of the proceeding at her/his request. If a student is found guilty of committing a sexual assault or other act of violence against another CUNY student or employee after a disciplinary hearing, the penalties may include suspension, expulsion from residence halls, or permanent dismissal from CUNY.

In addition, if during the course of the investigation and/or disciplinary process the alleged perpetrator, or anyone on his/her behalf, seeks to contact the victim so as to harass, intimidate, threaten or coerce the victim in any way, the College reserves the right to bring additional disciplinary action against the actor. Such conduct by any member of the CUNY community will not be tolerated.

## Confidentiality

The University recognizes that confidentiality is particularly important to victims of sex crimes, domestic and intimate partner violence and stalking. If the victim seeks counseling with a licensed professional and/or works with an advocate from the campus, those communications will be confidential. CUNY encourages victims in all circumstances to seek
counseling in order to speak about her/his options and to begin the recovery period.

While complete confidentiality cannot be guaranteed, every effort will be made to maintain confidentiality on a "need to know" basis. Generally, the wishes of a victim not to report a sexual assault or incident of domestic/intimate partner violence or stalking to the police will prevail, though the College reserves the right to notify the police when it believes that such reporting is necessary for the protection of the College community. Such notification, however, will generally be done without divulging the victim's identity and for the purpose of providing a campus-wide safety alert. In addition, the College must adhere to legal mandates such as Title IX, medical reporting laws, and the Campus Security Act. For example, CUNY is required to make an annual report documenting the occurrences of violent crimes on campus, including sexual assault. However, this report does not include any information identifying the individuals (including the victims) linked to these crimes.

## III. Implementation of The Policies and Procedures Concerning Sexual Assault And Other Forms of Violence Against Students

The President and Vice President for Student Affairs/Student Development of each college shall be responsible for implementing this policy in accordance with the most up-todate information and resources pertaining to sexual assault, stalking and domestic/intimate partner violence education and prevention, and victim assistance. The following steps must be taken to implement this policy:

1. Publication: A copy of this policy shall be easily accessible on the CUNY website and on the website administered by each College. A summary shall also be incorporated into every College student handbook. In addition, copies of the policy and procedures shall be made available in student centers, residence halls, student affairs/student development offices, women's/men's centers, counseling centers, health clinics and public safety departments, and shall be distributed to all new students during orientations.
2. Prevention/Risk Reduction Education: Each College shall develop materials and programs to educate its students, faculty and staff on the nature, dynamics, common circumstances and effects of sexual assault, domestic/intimate partner violence and stalking, and the means to reduce their occurrence and prevent them. Prevention education should provide up-to-date and relevant information, such as education pertaining to bystander intervention, the importance of peer networks and the significance of fostering a community of responsibility.
Prevention education materials and programs shall be incorporated into campus orientation activities for all incoming
undergraduate and graduate students (including transfers), and shall be made available to all student activity groups, clubs and athletic teams. In addition, all residence halls shall have a mandatory orientation on sexual assault, stalking and domestic/intimate partner violence prevention. Colleges are encouraged to assist in the organization of peer education groups and to provide resources to such groups so that the groups can provide training and outreach to other students throughout the academic year. Since the abuse of alcohol is frequently involved in occurrences of sexual assault and other forms of violence, it is important that the education program include education about the deleterious effects of alcohol abuse.
3. Professional Training: Each College shall provide periodic training relating to the prevention and handling of sexual assaults, stalking and domestic/intimate partner violence for all relevant personnel, including public safety officers, counselors, student affairs staff and residence hall assistants by experts trained in the field. Education and training shall also be made available to any interested faculty and staff member. Each campus must have at least one qualified staff or faculty member serve as a designated liaison and trainer.
4. Oversight by CUNY Central Administration: The University Vice Chancellor for Student Affairs shall monitor compliance with this policy at all of the campuses, shall review the policies and procedures on an annual basis, and shall make recommendations in the event that updates to prevention and education information are necessitated. In addition, the Office of the Vice Chancellor for Student Affairs shall provide educational materials that may be needed to ensure full implementation of this policy on every campus. Liaisons will be identified from each campus who will receive standardized training in order to fulfill their responsibilities on their campuses. The policies, procedures and outreach materials and programs will be subject to a periodic process of assessment in order to maintain efficacy.

## Examples of Sexual Harassment

Sexual harassment may take different forms. Using a person's response to a request for sexual favors as a basis for an academic or employment decision is one form of sexual harassment. Examples of this type of sexual harassment include, but are not limited to, the following:

- requesting or demanding sexual favors in exchange for employment or academic opportunities (such as hiring, promotions, grades, or recommendations);
- submitting unfair or inaccurate job or academic evaluations or grades, or denying training, promotion, or access to any other employment or academic opportunity, because sexual advances have been rejected.

Other types of unwelcome conduct of a sexual nature can also constitute sexual harassment, if sufficiently severe or pervasive that the target does find, and a reasonable person
would find, that an intimidating, hostile, or abusive work or academic environment has been created. Examples of this kind of sexual harassment include, but are not limited to, the following:

- sexual comments, teasing, or jokes;
- sexual slurs, demeaning epithets, derogatory statements, or other verbal abuse;
- graphic or sexually suggestive comments about an individual's attire or body;
- inquiries or discussions about sexual activities;
- pressure to accept social invitations, to meet privately, to date, or to have sexual relations;
- sexually suggestive letters or other written materials;
- sexual touching, brushing up against another in a sexual manner, graphic or sexually
- suggestive gestures, cornering, pinching, grabbing, kissing, or fondling;
- coerced sexual intercourse or sexual assault.


## Consensual Relationships

Amorous, dating, or sexual relationships that might be appropriate in other circumstances have inherent dangers when they occur between a faculty member, supervisor, or other member of the University community and any person for whom he or she has a professional responsibility. These dangers can include: that a student or employee may feel coerced into an unwanted relationship because he or she fears that refusal to enter into the relationship will adversely affect his or her education or employment; that conflicts of interest may arise when a faculty member, supervisor, or other member of the University community is required to evaluate the work or make personnel or academic decisions with respect to an individual with whom he or she is having a romantic relationship; that students or employees may perceive that a fellow student or coworker who is involved in a romantic relationship will receive an unfair advantage; and that if the relationship ends in a way that is not amicable, either or both of the parties may wish to take action to injure the other party.
Faculty members, supervisors, and other members of the University community who have professional responsibility for other individuals, accordingly, should be aware that any romantic or sexual involvement with a student or employee for whom they have such a responsibility may raise questions as to the mutuality of the relationship and may lead to charges of sexual harassment. For the reasons stated above, such relationships are strongly discouraged.
For purposes of this section, an individual has "professional responsibility" for another individual at the University if he or she performs functions including, but not limited to, teaching, counseling, grading, advising, evaluating, hiring, supervising,
or making decisions or recommendations that confer benefits such as promotions, financial aid awards or other remuneration, or that may impact upon other academic or employment opportunities.

## Academic Freedom

This policy shall not be interpreted so as to constitute interference with academic freedom.

## False and Malicious Accusations

Members of the University community who make false and malicious complaints of sexual harassment, as opposed to complaints which, even if erroneous, are made in good faith, will be subject to disciplinary action.

## Procedures

The University has developed procedures to implement this policy. The President of each constituent college of the University, the Senior Vice Chancellor at the Central Office, and the Dean of the Law School shall have ultimate responsibility for overseeing compliance with this policy at his or her respective unit of the University. In addition, each dean, director, department chairperson, executive officer, administrator, or other person with supervisory responsibility shall be required to report any complaint of sexual harassment to the individual or individuals designated in the procedures. All members of the University community are required to cooperate in any investigation of a sexual harassment complaint.

## Enforcement

There is a range of corrective actions and penalties available to the University for violations of this policy. Students, faculty, or staff who are found, following applicable disciplinary proceedings, to have violated this Policy are subject to various penalties, including termination of employment and/or student expulsion from the University.

## Sexual Harassment Awareness and Intake Committee

The Sexual Harassment Awareness and Intake Committee is responsible for educating the Lehman College community about sexual harassment and $\hat{A}$ its potential consequences to the University community. The members of the Sexual Harassment Awareness and Intake Committee are available to respond to inquiries, receive complaints alleging sexual harassment from any member of the college community, and to refer individuals and/or the complaint to the Sexual Harassment Coordinator. The members of the Sexual Harassment Awareness and Intake Committee are:
Annecy Baez, Counseling Center
(718-960-8761)
Chelsea Campbell, Paralegal Studies Program/Continuing Education
(718-960-1159)

Vanessa Gonzalez, Campus Life
(718-960-8468)
Joette Reaves, Health Programs/Continuing Education (718-960-8998)
Maritza Rivera, Office of Compliance and Diversity (718-960-8111)
Michael Sullivan, Campus Life
(718-960-8535)

## Sexual Harassment Coordinator

Dawn Ewing Morgan, Office of Compliance and Diversity (718-960-8111)

Sexual Harassment Deputy Coordinators
Graciela Castex, Sociology and Social Work
(718-960-7864)
John Cirace, Economics \& Accounting
(718-960-8388)
Vincent Zucchetto, Student Affairs
(718-960-8242)

## Lehman College Records Policy

## Prohibition on Submission of Fraudulent Admission Documents:

The submission of documents in support of applications for admission such as transcripts, diplomas, test scores, references, or the applications themselves, that are forged, fraudulent, altered from the original, materially incomplete, obtained under false pretenses, or otherwise deceptive (collectively referred to as fraudulent documents) is prohibited and is punishable by a five-year bar on applying for admission or five year suspension from CUNY. A second violation is punishable by a lifetime ban on applying for admission or expulsion from CUNY.
When fraudulent admissions documents are discovered prior to an applicant's enrollment, sanctions will be imposed centrally. A first offense will be punishable by a five-year bar on applying for admission and a second offense will result in a lifetime ban. The accused applicant will have the opportunity to appeal to the Vice Chancellor for Student Development.
If the fraudulent admissions document is discovered after the student completes registration or begins classes at a college, the student shall be suspended for five years with the right to appeal through the college student disciplinary process. A second offense results in expulsion.
If the fraudulent admissions document is discovered after the student has already graduated, the graduate shall be notified in writing and shall be entitled to a disciplinary hearing under Article 15 of the Board Bylaws. If the disciplinary committee sustains the charges, the committee may impose a five-year
suspension and in addition recommend the revocation of the degree. A second violation results in expulsion. Any recommendation to revoke a degree is subject to the approval by the Board of Trustees after considering the recommendation of the faculty of the college.

## Family Educational Rights and Privacy Act (F.E.R.P.A)

The Family Educational Rights and Privacy Act (F.E.R.P.A.) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records.
Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
All requests shall be granted or denied in writing within 15 days of receipt. If the request is granted, the student will be notified of the time and place where the records may be inspected. If the request is denied or not responded to within 15 days, the student may appeal. Additional information regarding the appeal procedures will be provided to the student if a request is denied.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.
Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write to the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.
If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that F.E.R.P.A. authorizes disclosure without consent.
One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position; a person or company with whom the University has contracted; a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
A school official has a legitimate educational interest if access is reasonably necessary in order to perform his/her instructional, research, administrative, or other duties and responsibilities.

Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
4. You may appeal the alleged denial of F.E.R.P.A. rights to the:
General Counsel and Vice Chancellor for Legal Affairs
The City University of New York
535 East 80th Street
New York, NY 10075
5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of F.E.R.P.A.
The name and address of the Office that administers F.E.R.P.A. are:

## Family Policy Compliance Office

U.S. Department of Education

600 Independence Avenue, SW
Washington, DC 20202-4605
6. The College may make the following "directory information" concerning current and former students available to those parties having a legitimate interest in the information: a student's name, attendance dates, telephone listing, home address, present address, date of birth, place of birth, photograph, E-mail address, full-or part-time status, class schedule, class roster (list), participation in officially recognized activities other than sports, participation in sports (teams), height if member of an athletic team, weight if member of an athletic team, previous schools attended, major and minor fields of study, and degrees and awards received. By filing a form with the Registrar's Office, a student or former student may request that any or all of the above information not be released without his or her prior written consent. This form may be completed, withdrawn, or modified at any time.

## New York State Education Law Section 224-A

Students unable because of religious beliefs to register or attend classes on certain days:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he is unable, because of his religious beliefs, to register or attend classes or to participate in any examination, study, or work requirements on a particular day or days.
2. Any student in an institution of higher education who is unable, because of his religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his religious beliefs, an equivalent
opportunity to register for classes or make up any examination, study, or work requirements which he may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.
4. If registration, classes, examinations, study, or work requirements are held on Friday after four o'clock post meridian or on Saturday, similar or makeup classes, examinations, study, work requirements, or opportunities shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study, or work requirements, or registration held on other days.
5. In effectuating the provisions of this section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.
6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the Supreme Court of the county in which such institution of higher education is located for the enforcement of his rights under this section.

## College Policies, Procedures and Regulations

Lehman College, like most institutions of higher learning, has regulations and policies governing academic standards and procedures, class attendance, final examinations, grade records, personal health, and conduct. They have been established in accordance with the Bylaws of the Board of Trustees, and on recommendation of the College's governance body - the Lehman College Senate. Specific policies and regulations are enumerated in this Bulletin and in the Student Guide, available in the Office of the Vice President of Student Affairs, the Division of Adult and Continuing Education, and the Office of Academic Advisement.

## Conduct

Article XV, Section 15.1 (Conduct Standard Defined) of the Bylaws of the Board of Trustees of The City University of New York reads as follows:

Each student enrolled or in attendance in any college, school, or unit under the control of the Board and every student organization, publication, club, or chapter shall obey the laws of the City, State, and Nation, and the published rules, regulations, and orders of the Board of Higher Education and the duly established college authorities. Application to Lehman College constitutes acceptance of the foregoing
provisions as well as of the detailed rules set forth in the Appendix.

## The City University of New York Computer User Responsibilities

NOTE: The city Universityof New York Computer User Responsibilities is a statement originally prepared by the University's Computer Policy Committee. It underwent review by the University Faculty Senate and the CUNY Office of the Vice Chancellor for Legal Affairs.

## Introduction

CUNY's computer resources are dedicated to the support of the university's mission of education, research, and public service. In furtherance of this mission, CUNY respects, upholds, and endeavors to safeguard the principles of academic freedom, freedom of expression, and freedom of inquiry.

CUNY recognizes that there is a concern among the university community that because information created, used, transmitted, or stored in electronic form is by its nature susceptible to disclosure, invasion, loss, and similar risks, electronic communications and transactions will be particularly vulnerable to infringements of academic freedom. CUNY's commitment to the principles of academic freedom and freedom of expression includes electronic information. Therefore, whenever possible, CUNY will resolve doubts about the need to access CUNY computer resources in favor of a user's privacy interest.
However, the use of CUNY computer resources, including for electronic transactions and communications, like the use of other university-provided resources and activities, is subject to the requirements of legal and ethical behavior. This policy is intended to support the free exchange of ideas among members of the CUNY community and between the CUNY community and other communities, while recognizing the responsibilities and limitations associated with such exchange.

## Applicability

This policy applies to all users of CUNY computer resources, whether affiliated with CUNY or not, and whether accessing those resources on a CUNY campus or remotely. This policy supersedes the CUNY policy titled "CUNY Computer User Responsibilities" and any college policies that are inconsistent with this policy.

## Definitions

"CUNY Computer resources" refers to all computer and information technology hardware, software, data, access and other resources owned, operated, or contracted by CUNY. This includes, but is not limited to, personal computers,
handheld devices, workstations, mainframes, minicomputers, servers, network facilities, databases, memory, and associated peripherals and software, and the applications they support, such as e-mail and access to the Internet. "E-mail" includes point-to-point messages, postings to newsgroups and listservs, and other electronic messages involving computers and computer networks.

## Rules for Use of CUNY Computer Resources

1. Authorization. Users may not access a CUNY computer resource without authorization or use it for purposes beyond the scope of authorization. This includes attempting to circumvent CUNY computer resource system protection facilities by hacking, cracking, or similar activities, accessing or using another person's computer account, and allowing another person to access or use the user's account. This provision shall not prevent a user from authorizing a colleague or clerical assistant to access information under the user's account on the user's behalf while away from a CUNY campus or because of a disability. CUNY computer resources may not be used to gain unauthorized access to another computer system within or outside of CUNY. Users are responsible for all actions performed from their computer account that they permitted or failed to prevent by taking ordinary security precautions.
2. Purpose. Use of CUNY computer resources is limited to activities relating to the performance by CUNY employees of their duties and responsibilities. For example, use of CUNY computer resources for private commercial or not-for-profit business purposes, for private advertising of products or services, or for any activity meant solely to foster personal gain, is prohibited. Similarly, use of CUNY computer resources for partisan political activity is also prohibited.
Except with respect to CUNY employees other than faculty, where a supervisor has prohibited it in writing, incidental personal use of computer resources is permitted so long as such use does not interfere with CUNY operations, does not compromise the functioning of CUNY computer resources, does not interfere with the user's employment or other obligations to CUNY, and is otherwise in compliance with this policy.
3. Compliance with Law. CUNY computer resources may not be used for any purpose or in any manner that violates CUNY rules, regulations, or policies, or federal, state, or local law. Users who engage in electronic communications with persons in other states or countries or on other systems or networks may also be subject to the laws of those other states and countries, and the rules and policies of those other systems and networks. Users are responsible for ascertaining, understanding, and complying with the laws, rules, policies, contracts, and licenses applicable to their particular use.
Examples of applicable federal and state laws include the laws of libel, obscenity, and child pornography, as well as the following:

Family Educational Rights and Privacy Act
Electronic Communications Privacy Act
Computer Fraud and Abuse Act
New York State Freedom of Information Law
New York State Law with respect to the confidentiality of library records
Examples of applicable CUNY rules and policies include the following:
Sexual Harassment Policy
Policy on Maintenance of Public Order
Web Site Privacy Policy
Gramm-Leach-Bliley Information Security Program
University Policy on Academic Integrity
Information Security policies

## 4. Licenses and Intellectual Property. Users of CUNY

 computer resources may use only legally obtained, licensed data or software and must comply with applicable licenses or other contracts, as well as copyright, trademark, and other intellectual property laws.Much of what appears on the internet and/or is distributed via electronic communication is protected by copyright law, regardless of whether the copyright is expressly noted. Users of CUNY computer resources should generally assume that material is copyrighted unless they know otherwise, and not copy, download, or distribute copyrighted material without permission unless the use does not exceed fair use as defined by the federal Copyright Act of 1976. Protected material may include, among other things, text, photographs, audio, video, graphic illustrations, and computer software.
5. False Identity and Harassment. Users of CUNY computer resources may not employ a false identity, mask the identity of an account or computer, or use computer resources to engage in abuse of others, such as sending harassing, obscene, threatening, abusive, deceptive, or anonymous messages within or outside CUNY.
6. Confidentiality. Users of CUNY computer resources may not invade the privacy of others by, among other things, viewing, copying, modifying, or destroying data or programs belonging to or containing personal or confidential information about others, without explicit permission to do so. CUNY employees must take precautions to protect the confidentiality of personal or confidential information encountered in the performance of their duties or otherwise.
7. Integrity of Computer Resources. Users may not install, use, or develop programs intended to infiltrate or damage a computer resource, or which could reasonably be expected to cause, directly or indirectly, excessive strain on any computing facility. This includes, but is not limited to, programs known as computer viruses, Trojan horses, and worms. Users should consult with the IT director at their college before installing any programs that they are not sure are safe.
8. Disruptive Activities. CUNY computer resources must not be used in a manner that could reasonably be expected
to cause or does cause, directly or indirectly, unwarranted or unsolicited interference with the activity of other users. This provision explicitly prohibits chain letters, virus hoaxes, or other intentional e-mail transmissions that disrupt normal e-mail service. Also prohibited are spamming, junk mail or other unsolicited mail that is not related to CUNY business and is sent without a reasonable expectation that the recipient would welcome receiving it, as well as the inclusion on e-mail lists of individuals who have not requested membership on the lists, other than the inclusion of members of the CUNY community on lists related to CUNY business. CUNY has the right to require users of CUNY computer resources to limit or refrain from other specific uses if, in the opinion of the IT director at the user's college, such use interferes with efficient operations of the system, subject to appeal to the President or, in the case of central office staff, to the Chancellor.
9. CUNY Names and Trademarks. CUNY names, trademarks, and logos belong to the university and are protected by law. Users of CUNY computer resources may not state or imply that they speak on behalf of CUNY or use a CUNY name, trademark, or logo without authorization to do so. Affiliation with CUNY does not, by itself, imply authorization to speak on behalf of CUNY.
10. Security. CUNY employs various measures to protect the security of its computer resources and of users' accounts. However, CUNY cannot guarantee such security. Users are responsible for engaging in safe computing practices, such as guarding and not sharing their passwords, changing passwords regularly, logging out of systems at the end of use, and protecting private information, as well as for following CUNY's Information Security policies and procedures. Users must report incidents of Information Security policy non-compliance or other security incidents to CUNY's Chief Information Officer and Chief Information Security Officer, and the IT director at the affected user's college.
11. Filtering. CUNY reserves the right to install spam, virus, and spyware filters and similar devices if necessary in the judgment of CUNY's Office of Information Technology or a college IT director to protect the security and integrity of CUNY computer resources. Notwithstanding the foregoing, CUNY will not install filters that restrict access to e-mail, instant messaging, chat rooms, or websites based solely on content.
Confidential Research Information. Principal investigators and others who use CUNY computer resources to store or transmit research information that is required by law or regulation to be held confidential or for which a promise of confidentiality has been given, are responsible for taking steps to protect confidential research information from unauthorized access or modification. In general, this means storing the information on a computer that provides strong access controls (passwords) and encrypting files,
documents, and messages for protection against inadvertent or unauthorized disclosure while in storage or in transit over data networks. Robust encryption is strongly recommended for information stored electronically on all computers, especially portable devices such as notebook computers, Personal Digital Assistants (PDAs), and portable data storage (e.g., memory sticks) that are vulnerable to theft or loss, as well as for information transmitted over public networks. Software and protocols used should be reviewed and approved by CUNY's Office of Information Technology.

## 12. CUNY Access to Computer Resources.

CUNY does not routinely monitor, inspect, or disclose individual usage of its computer resources without the user's consent. In most instances, if the university needs information located in a CUNY computer resource, it will simply request it from the author or custodian. However, CUNY IT professionals and staff do regularly monitor general usage patterns as part of normal system operations and maintenance and might, in connection with these duties, observe the contents of web sites, e-mail, or other electronic communications. Except as provided in this policy or by law, these individuals are not permitted to seek out contents or transactional information, or disclose or otherwise use what they have observed. Nevertheless, because of the inherent vulnerability of computer technology to unauthorized intrusions, users have no guarantee of privacy during any use of CUNY computer resources or in any data in them, whether or not a password or other entry identification or encryption is used. Users may expect that the privacy of their electronic communications and of any materials contained in computer storage in any CUNY electronic device dedicated to their use will not be intruded upon by CUNY except as outlined in this policy.
CUNY may specifically monitor or inspect the activity and accounts of individual users of CUNY computer resources, including individual login sessions, e-mail, and other communications, without notice, in the following circumstances:
a. when the user has voluntarily made them accessible to the public, as by posting to Usenet or a web page;
b. when it is reasonably necessary to do so to protect the integrity, security, or functionality of CUNY or other computer resources, as determined by the college chief information officer or his or her designee, after consultation with CUNY's chief information officer or his or her designee;
c. when it is reasonably necessary to diagnose and resolve technical problems involving system hardware, software, or communications, as determined by the college chief information officer or his or her designee, after consultation with CUNY's chief information officer or his or her designee;
d. when it is reasonably necessary to protect CUNY from liability, or when failure to act might result in significant bodily harm, significant property loss or damage, or loss of significant evidence, as determined by the college president or a vice president designated by the president, after consultation with the Office of General Counsel and the Chair of the University Faculty Senate (if a CUNY faculty
member's account or activity is involved) or Vice Chair if the Chair is unavailable;
e. when there is a reasonable basis to believe that CUNY policy or federal, state, or local law has been or is being violated, as determined by the college president or a vice president designated by the president, after consultation with the Office of General Counsel and the Chair of the University Faculty Senate (if a CUNY faculty member's account or activity is involved) or Vice Chair if the Chair is unavailable;
f. when an account appears to be engaged in unusual or unusually excessive activity, as indicated by the monitoring of general activity and usage patterns, as determined by the college president or a vice president designated by the president and the college chief information officer or his or her designee, after consultation with CUNY's chief information officer or his or her designee, the Office of General Counsel, and the Chair of the University Faculty Senate (if a CUNY faculty member's account or activity is involved) or Vice Chair if the Chair is unavailable; or
g. as otherwise required by law.

In those situations in which the Chair of the University Faculty Senate is to be consulted prior to monitoring or inspecting an account or activity, the following procedures shall apply: (i) the college president shall report the completion of the monitoring or inspection to the Chair and the CUNY employee affected, who shall also be told the reason for the monitoring or inspection, except where specifically forbidden by law; and (ii) if the monitoring or inspection of an account or activity requires physical entry into a faculty member's office, the faculty member shall be advised prior thereto and shall be permitted to be present to observe, except where specifically forbidden by law.

A CUNY employee may apply to the General Counsel for an exemption from some or all of the circumstances under which CUNY may inspect and monitor computer resource activity and accounts, pursuant to subparagraphs (a)-(f) above, with respect to a CUNY computer resource used solely for the collection, examination, analysis, transmission, or storage of confidential research data. In considering such application, the General Counsel shall have the right to require the employee to affirm in writing that the computer resource will be used solely for the confidential research. Any application for exemption should be made prior to using the computer resource for the confidential research.

CUNY, in its discretion, may disclose the results of any general or individual monitoring or inspection to appropriate CUNY personnel or agents, or law enforcement or other agencies. The results may be used in college disciplinary proceedings, discovery proceedings in legal actions, or otherwise as is necessary to protect the interests of the University.

In addition, users should be aware that CUNY may be required to disclose to the public under the New York State Freedom of Information Law communications made by means of CUNY computer resources in conjunction with University business.

Any disclosures of activity of accounts of individual users to persons or entities outside of CUNY, whether discretionary or required by law, shall be approved by the General Counsel and shall be conducted in accordance with any applicable law. Except where specifically forbidden by law, CUNY employees subject to such disclosures shall be informed promptly after the disclosure of the actions taken and the reasons for them.

The Office of General Counsel shall issue an annual statement of the instances of account monitoring or inspection that fall within categories (d) through (g) above. The statement shall indicate the number of such instances and the cause and result of each. No personally identifiable data shall be included in this statement.

See CUNY's Web Site Privacy Policy for additional information regarding data collected by CUNY from visitors to the CUNY website at $w w w . c u n y . e d u$.
13. Enforcement. Violation of this policy may result in suspension or termination of an individual's right of access to CUNY computer resources, disciplinary action by appropriate CUNY authorities, referral to law enforcement authorities for criminal prosecution, or other legal action, including action to recover civil damages and penalties. Violations will normally be handled through the university disciplinary procedures applicable to the relevant user. For example, alleged violations by students will normally be investigated, and any penalties or other discipline will normally be imposed, by the Office of Student Affairs.
CUNY has the right to temporarily suspend computer use privileges and to remove from CUNY computer resources material it believes violates this policy, pending the outcome of an investigation of misuse or finding of violation. This power may be exercised only by the President of each college or the Chancellor.
14. Additional Rules. Additional rules, policies, guidelines and/or restrictions may be in effect for specific computers, systems, or networks, or at specific computer facilities at the discretion of the directors of those facilities. Any such rules which potentially limit the privacy or confidentiality of electronic communications or information contained in or delivered by or over CUNY computer resources will be subject to the substantive and procedural safeguards provided by this policy.
15. Disclaimer. CUNY shall not be responsible for any damages, costs, or other liabilities of any nature whatsoever with regard to the use of CUNY computer resources. This includes, but is not limited to, damages caused by unauthorized access to CUNY computer resources, data loss, or other damages resulting from delays, nondeliveries, or service interruptions, whether or not resulting from circumstances under the CUNY's control.
Users receive and use information obtained through CUNY computer resources at their own risk. CUNY makes no warranties (expressed or implied) with respect to the use of CUNY computer resources. CUNY accepts no responsibility for the content of web pages or graphics that are linked from CUNY web pages, for any advice or information received by a user through use of CUNY computer resources, or for any costs or charges incurred by a user as a result of seeking or accepting such advice or information. CUNY reserves the right to change this policy and other related policies at any time. CUNY reserves any rights and remedies that it may have under any applicable law, rule, or regulation. Nothing contained in this policy will in any way act as a waiver of such rights and remedies.

## Freedom of Speech

Freedom of speech is an essential tradition of any academic community. All members of the Lehman community must be vigilant in exercising their rights of expression so as not to preclude other persons' guaranteed right to give and receive expression as part of the deliberative process of the academic community. Preservation of this right on campus requires the scrupulous use of means of communication. Public-address systems and all other amplification devices are prohibited.

## Smoking

Smoking is prohibited in all buildings owned, leased, or operated by the City University of New York. Effective no later than September 4, 2012, the following shall be prohibited at The City University of New York: (1) the use of tobacco on all grounds and facilities under CUNY jurisdiction, including indoor locations and outdoor locations such as playing fields; entrances and exits to buildings; and parking lots; (2) tobacco industry promotions, advertising, marketing, and distribution of marketing materials on campus properties; and (3) tobacco industry sponsorship of athletic events and athletes.

## Drug and Alcohol Usage

The use of illegal drugs will subject the individual to the penalties provided by law. Individual problems with drugs may be discussed in strict confidence with the counseling faculties of the College. The use of legal drugs that are nevertheless injurious to the health is not condoned. The use of alcohol by anyone under 21 years of age is illegal and prohibited.

## Identification Cards

Identification cards, issued by the College, must be carried at all times. Students are required to present their I.D. cards upon the request of any College official. Any guest of a student visiting the campus must obtain a pass from Campus Security (The APEX, Room 109) and must present it upon request.

## Attendance and Absences

Students in basic skills courses are required to attend classes. Students in all other courses are expected to attend classes regularly, and instructors are required to record attendance for grading and counseling purposes. Individual instructors, as well as departments or degree programs, may establish specific attendance requirements. Instructors have the right to weigh attendance and class participation in determining grades. It is the student's responsibility to ascertain the effect attendance may have on the grade in a course. Students receiving financial aid must be certified as attending classes regularly for continuing eligibility.

## Petitioning

For a petition to be circulated by any student or student group, two copies shall be filed with the Office of Student Activities. All copies of the petition must bear the name of the group or groups circulating the petition.

## Solicitation on Campus

No student or nonstudent may use any part of the College buildings and grounds (including Bulletin boards) for soliciting or selling any merchandise or service without the express permission of the Vice President of Student Affairs. Lehman College and the City University of New York do not sponsor any products, merchandising schemes, or tours. Advertising appearing in student publications does not imply the sponsorship of the College.

## Representing the College

No student or student organization may be a self-appointed representative of Lehman College or any division thereof, nor of The City University of New York.

## Extracurricular Activities and Programs

## Group Activities

The College offers a wide range of extracurricular activities and programs. These include departmental, religious, social, political, and athletic activities; creative events, such as art displays and literary, musical, and dramatic performances; and extracurricular lectures on varied topics. Students publish newspapers and other publications and have the opportunity to join a variety of clubs.

## Policy on Guest Speakers

Student groups have the right to hear speakers of their choice in accordance with the rules set by the College. It may not, however, be assumed that speakers invited by students represent the views of the College.

## Student Government

Student government consists of The Campus Association for Student Activities (C.A.S.A.), which plans and administers programs and allocates funds for student groups, and the Student Conference, which represents students' interests in the Lehman College Senate.

## Participation in College Governance

Students shall comprise a permanent one-third of the total membership of the Senate, based upon combining the total number of voting faculty and voting administration representatives. Senate meetings are open to all students and staff at the College. Students are also represented on College committees. The student senators comprise the Student Conference.

## Notification of Student Immunization Requirements

Students who do not submit proof of measles, mumps, and rubella (M.M.R.) immunization or who fail to return the meningococcal meningitis response form within a statutory grace period shall be prohibited from attending the institution. For additional information, contact the Student Health Center located in the T-3 Building, Room 118 at the following phone number: 718-960-8900.
Public Health Law 2165 requires that postsecondary students be immunized against measles, mumps, and rubella (M.M.R.).
All registered full-time students and part-time students born on or after January 1, 1957 who are enrolled for at least six, but fewer than twelve semester hours (or equivalent) per semester in an approved degree program or registered certificate program must submit proof of M.M.R. immunization. Students may be exempt from the required
M.M.R. immunizations for religious or medical reasons. To qualify for a religious exception, students must submit a signed statement, or in the event the student is a minor (under 18), a signed statement from their parent or guardian, that they hold sincere and genuine religious beliefs that prohibit immunization. To qualify for a medical exception, students must submit a written statement from a licensed physician or nurse practitioner indicating that such immunization may be detrimental to their health.
Public Health Law 2167 requires that postsecondary institutions provide written information about meningococcal meningitis to its students and that students complete, sign, and return a meningococcal meningitis response form. Public Health Law 2167 does not require that students be immunized against meningitis.
Public Health Law 2167 requires colleges to distribute written information about meningococcal meningitis disease and vaccination and students to complete, sign, and return to the college, a meningococcal meningitis response form that: (a) $\hat{A}$ confirms that the college has provided the information about meningococcal meningitis; and (b) indicates that either: (1) the student has received immunization against meningococcal meningitis within the 10 years preceding the date of the response form; or (2) the student has decided against receiving the vaccination. This law applies to students who are enrolled in at least six semester hours (or the equivalent) per semester. No student may be exempt from receiving information or returning the response form.

## Freedom of Information Law Notice

Requests to inspect public records at the college should be made to the Records Access Officer, Esdras Tulier, special counsel to the President, who is located in Shuster Hall, Room 376 (718-960-8559). Public records are available for inspection and copying by appointment only at a location to be designated. You have a right to appeal a denial of a request for access to records to the CUNY General Counsel and Vice Chancellor for Legal Affairs. Copies of the CUNY Procedures for Public Access to Public Records Pursuant to Article 6 of the Public Officers Law and the appeal form are available at the Reference Desk of the Library and on the College website.

## CUNY Policy on Academic Integrity

Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion, as provided herein.

## Definitions and Examples of Academic Dishonesty

Cheating is the unauthorized use or attempted use of material, information, notes, study aids devices, or communication during an academic exercise.

The following are some examples of cheating, but by no means is it an exhaustive list:.

- Copying from another student during an examination or allowing another to copy your work.
- Unauthorized collaboration on a take-home assignment or examination.
- Using notes during a closed-book examination.
- Taking an examination for another student, or asking or allowing another student to take an examination for you.
- Changing a graded exam and returning it for more credit.
- Submitting substantial portions of the same paper to more than one course without consulting with each instructor.
- Preparing answers or writing notes in a blue book (exam booklet) before an examination.
- Allowing another to research and write assigned papers or do assigned projects, including use of commercial term paper services.
- Giving assistance to acts of academic misconduct/dishonesty.
- Fabricating data (all or in part).
- Submitting someone else's work as your own.
- Unauthorized use during an examination of any electronic devices, such as cell phones, palm pilots, computers, or other technologies to retrieve or send information.
Plagiarism is the act of presenting another person's ideas, research or writings as your own.

The following are some examples of plagiarism, but by no means is it an exhaustive list:

- Copying another person's actual words without the use of quotation marks and footnotes attributing the words to their source.
- Presenting another person's ideas or theories in your own words without acknowledging the source.
- Using information that is not common knowledge without acknowledging the source.
- Failing to acknowledge collaborators on homework and laboratory assignments.
Internet Plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the Internet without citing the source, and "cutting \& pasting" from various sources without proper attribution.

Obtaining Unfair Advantage is any activity that intentionally or unintentionally gives a student an unfair advantage in his/her academic work over another student.
The following are some examples of obtaining an unfair advantage, but by no means it is an exhaustive list:

- Stealing, reproducing, circulating, or otherwise gaining advance access to examination materials.
- Depriving other students of access to library materials by stealing, destroying, defacing, or concealing them.
- Retaining, using, or circulating examination materials which clearly indicate that they should be returned at the end of the exam.
- Intentionally obstructing or interfering with another student's work.


## Falsification of Records and Official Documents

The following are some examples of falsification, but by no means is it an exhaustive list:

- Forging signatures of authorization.
- Falsifying information on an official academic record.
- Falsifying information on an official document, such as a grade report, letter of permission, drop/add form, ID card, or other College document.


## Procedures for Imposition of Sanctions for Violations of CUNY Policy on Academic Integrity

## Introduction

As a legal matter, in disciplining students for violations of policies of academic integrity, CUNY, as a public institution, must conform to the principles of due process mandated by the Fourteenth Amendment to the United States Constitution generally speaking, to provide notice of the charges and some opportunity to be heard. In the context of court-litigated violations, questions as to how much and what kind of process was "due" turn on the court's judgment whether the decision on culpability was "disciplinary" (a question of fact) or "academic" (a question of the instructor's expert judgment). This distinction has proved difficult to apply on campus. Accordingly, these procedures provide for alternative approaches depending on the severity of the sanction(s) being sought. If the instructor desires solely an "academic" sanction, that is, a grade reduction, less process is due than if a "disciplinary" sanction, such as suspension or expulsion, is sought.
A faculty member who suspects that a student has committed a violation of the CUNY or the College Academic Integrity Policy shall review with the student the facts and circumstances of the suspected violation whenever possible. The decision whether to seek an academic sanction only, rather than a disciplinary sanction or both types of sanctions, will rest with the faculty member in the first instance, but the college retains the right to bring disciplinary charges against the student. Among the factors the College should consider in determining whether to seek a disciplinary sanction are whether the student has committed one or more prior
violations of the Academic Integrity Policy and mitigating circumstances, if any. It is strongly recommended that instance of suspected violation should be reported to the Academic Integrity Official on a form provided by the College. Among other things, this reporting will allow the College to determine whether it wishes to seek a disciplinary sanction even where the instructor may not wish to do so.

## Procedures in Cases Where the Instructor Seeks an Academic Sanction Only

1. Student Accepts Guilt and Does Not Contest the Academic Sanction
If the faculty member wishes to seek only an academic sanction (i.e., a reduced grade ${ }^{1}$ only), and the student does not contest either his/her guilt or the particular reduced grade the faculty member has chosen, then the student shall be given the reduced grade, unless the College decides to seek a disciplinary sanction. The reduced grade may apply to the particular assignment as to which the violation occurred or to the course grade, at the faculty member's discretion.
2. Student Denies Guilt and/or Contests the Academic Sanction
If the student denies guilt or contests the particular grade awarded by the faculty member, then the matter shall be handled using the College's grade appeals process, including departmental grading committees where applicable, or the Academic Integrity Committee. In either case, the process must, at a minimum, provide the student with an opportunity to be heard and to present evidence.

## Procedures in Cases Where a Disciplinary Sanction Is Sought

If a faculty member suspects a violation and seeks a disciplinary sanction, the faculty member shall refer the matter to the College's Academic Integrity Official using the Faculty Report form, to be adjudicated by the College's Faculty-Student Disciplinary Committee under Article 15 of the CUNY Bylaws. As provided for therein, the FacultyStudent Disciplinary Committee may, among other things, investigate, conciliate, or hear evidence on cases in which disciplinary charges are brought. ${ }^{2}$ Under certain circumstances, College officials other than the Academic Integrity Official may seek disciplinary sanctions following the procedures outlined above. If a reduced grade is also at issue, then that grade should be held in abeyance, pending the Faculty-Student Disciplinary Committee's action.

## Procedures in Cases in Which Both a Disciplinary and an Academic Sanction Are Sought

If a faculty member or the College seeks to have both a disciplinary and an academic sanction imposed, it is not advisable to proceed on both fronts simultaneously lest inconsistent results ensue. Thus, it is best to begin with the
disciplinary proceeding seeking imposition of a disciplinary sanction and await its outcome before addressing the academic sanction. If the Faculty-Student Disciplinary Committee finds that the alleged violation occurred, then the faculty member may reflect that finding in the student's grade. If the Faculty-Student Disciplinary Committee finds that the alleged violation did not occur, then no sanction of any kind may be imposed. The decision whether to pursue both types of sanctions will ordinarily rest with the faculty member.

## Reporting Requirements

1. By the Faculty Member to the Academic Integrity Official In cases where a violation of academic integrity has been found to have occurred (whether by admission or a fact-finding process), the faculty member should promptly file with the Academic Integrity Official a report of the adjudication in writing on a Faculty Report form provided by the College as described above. The Academic Integrity Official shall maintain a confidential file for each student about whom a suspected or adjudicated violation is reported. If either the grade appeals process or the FacultyStudent Disciplinary Committee finds that no violation occurred, the Academic Integrity Official shall remove and destroy all material relating to that incident from the student's confidential academic integrity file. Before determining what sanction(s) to seek, the faculty member or the Academic Integrity Official may consult the student's confidential academic integrity file, if any, to determine whether the student has been found to have previously committed a violation of the Academic Integrity Policy, the nature of the infraction, and the sanction imposed or action taken.
2. By the Academic Integrity Official to the Faculty Member Where a matter proceeds to the Faculty-Student Disciplinary Committee, the Academic Integrity Official shall promptly report its resolution to the faculty member and file a record of the resolution in the student's confidential academic integrity file, unless, as indicated above, the suspected violation was held to be unfounded, in which case all reporting forms concerning that suspected violation shall be destroyed.

## Procedures for Handling Student Complaints about Faculty Conduct in Academic Settings

1. Introduction. The University and its Colleges have a variety of procedures for dealing with student-related issues, including grade appeals, academic integrity violations, student discipline, disclosure of student records, student elections, sexual harassment complaints, disability accommodations, and discrimination. One area not generally covered by other procedures concerns student complaints about faculty conduct in the classroom or other formal academic settings. The University respects the academic freedom of the faculty and will not interfere with it as it relates to the content or style of teaching activities. Indeed, academic freedom is and should be of paramount importance. At the same time the University recognizes its responsibility to provide students with a procedure for addressing complaints about faculty treatment of students that are not protected by academic freedom and are not
covered by other procedures. Examples might include incompetent or inefficient service, neglect of duty, physical or mental incapacity, and conduct unbecoming a member of the staff.
2. Determination of Appropriate Procedure. If students have any question about the applicable procedure to follow for a particular complaint, they should consult with the chief student affairs officer. In particular, the chief student affairs officer should advise a student if some other procedure is applicable to the type of complaint the student has.
3. Informal Resolution. Students are encouraged to attempt to resolve complaints informally with the faculty member or to seek the assistance of the department chairperson or campus ombudsman to facilitate informal resolution.
4. Formal Complaint. If the student does not pursue informal resolution, or if informal resolution is unsuccessful, the student may file a written complaint with the department chairperson or, if the chairperson is the subject of the complaint, with the academic dean or a senior faculty member designated by the college president. (This person will be referred to below as the "Fact Finder.")
5. The complaint shall be filed within 30 calendar days of the alleged conduct unless there is good cause shown for delay, including but not limited to delay caused by an attempt at informal resolution. The complaint shall be as specific as possible in describing the conduct complained of.
6. The Fact Finder shall promptly send a copy to the faculty member about whom the complaint is made, along with a letter stating that the filing of the complaint does not imply that any wrongdoing has occurred and that a faculty member must not retaliate in any way against a student for having made a complaint. If either the student or the faculty member has reason to believe that the department chairperson may be biased or otherwise unable to deal with the complaint in a fair and objective manner, he or she may submit to the academic dean or the senior faculty member designated by the college president a written request stating the reasons for that belief; if the request appears to have merit, that person may, in his or her sole discretion, replace the department chairperson as the Fact Finder.
7. The Fact Finder shall meet with the complaining student and faculty member, either separately or together, to discuss the complaint and to try to resolve it. The Fact Finder may seek the assistance of the campus ombudsman or other appropriate person to facilitate informal resolution.
8. If resolution is not possible, and the Fact Finder concludes that the facts alleged by the student, taken as true and viewed in the light most favorable to the student, establish that the conduct complained of is clearly protected by academic freedom, he or she shall issue a written report
dismissing the complaint and setting forth the reasons for dismissal and send a copy to the complaining student, the faculty member, the chief academic officer, and the chief student affairs officer. Otherwise, the Fact Finder shall conduct an investigation. The Fact Finder shall separately interview the complaining student, the faculty member, and other persons with relevant knowledge and information and shall also consult with the chief student affairs officer and, if appropriate, the college ombudsman. The Fact Finder shall not reveal the identity of the complaining student and the faculty member to others except to the extent necessary to conduct the investigation. If the Fact Finder believes it would be helpful, he or she may meet again with the student and faculty member after completing the investigation in an effort to resolve the matter. The complaining student and the faculty member shall have the right to have a representative (including a union representative, student government representative, or attorney) present during the initial meeting, the interview, and any post-investigation meeting.
9. At the end of the investigation, the Fact Finder shall issue a written report setting forth his or her findings and recommendations, with particular focus on whether the conduct in question is protected by academic freedom, and send a copy to the complaining student, the faculty member, the chief academic officer, and the chief student affairs officer. In ordinary cases, it is expected that the investigation and written report should be completed within 30 calendar days of the date the complaint was filed.
10. Appeals Procedure. If either the student or the faculty member is not satisfied with the report of the Fact Finder, the student or faculty member may file a written appeal to the chief academic officer within 10 calendar days of receiving the report. The chief academic officer shall convene and serve as the chairperson of an Appeals Committee, which shall also include the chief student affairs officer, two faculty members elected annually by the faculty council or senate, and one student elected annually by the student senate. The Appeals Committee shall review the findings and recommendations of the report, with particular focus on whether the conduct in question is protected by academic freedom. The Appeals Committee shall not conduct a new factual investigation or overturn any factual findings contained in the report unless they are clearly erroneous. If the Appeals Committee decides to reverse the Fact Finder in a case where there has not been an investigation because the Fact Finder erroneously found that the alleged conduct was protected by academic freedom, it may remand to the Fact Finder for further proceedings. The committee shall issue a written decision within 20 calendar days of receiving the appeal. A copy of
the decision shall be sent to the student, the faculty member, the department chairperson, and the president.
11. Subsequent Action. Following the completion of these procedures, the appropriate college official shall decide the appropriate action, if any, to take. For example, the department chairperson may decide to place a report in the faculty member's personnel file or the president may bring disciplinary charges against the faculty member. Disciplinary charges may also be brought in extremely serious cases even though the college has not completed the entire investigative process described above; in that case, the bringing of disciplinary charges shall automatically suspend that process. Any action taken by a college must comply with the bylaws of the University and the collective bargaining agreement between the University and the Professional Staff Congress.
12. Campus Implementation. Each campus shall implement these procedures and shall distribute them widely to administrators, faculty members, and students and post them on the college website.
13. Board Review. During the spring 2009 semester, the Chancellery shall conduct a review of the experience of the colleges with these procedures, including consultation with administrators, faculty, and students, and shall report the results of that review to the Board of Trustees, along with any recommended changes.
${ }^{1}$ A reduced grade can be an "F," a "D-," or another grade that is lower than the grade that would have been given but for the violation.
${ }^{2}$ Typically, disciplinary sanctions would be sought in cases of the most egregious, or repeated, violations, for example: infraction in ways similar to criminal activity (such as forging a grade form; stealing an examination from a professor or a university office; or forging a transcript); having a substitute take an examination or taking an examination for someone else; sabotaging another student's work through actions designed to prevent the student from successfully completing an assignment; dishonesty that affects a major or essential portion of work done to meet course requirements. [These examples have been taken from a list of violations compiled by Rutgers University.]

## The City University of New York Campus and Workplace Violence Policy

## Policy Statement

The City University of New York (the "University" or "CUNY") is committed to the prevention of workplace violence and will respond promptly to any threats and/or acts of violence. For purposes of this Policy, Workplace Violence is defined as any physical assault or acts of aggressive behavior occurring where an employee performs any work-
related duty in the course of his or her employment, including but not limited to:

1. An attempt or threat, whether verbal or physical, to inflict physical injury upon an employee;
2. Any intentional display of force which would give an employee reason to fear or expect bodily harm;
3. Intentional and wrongful physical contact with an employee without his or her consent that entails some injury;
4. Stalking an employee in a manner which may cause the employee to fear for his or her physical safety and health when such stalking has arisen through and in the course of employment.
Workplace Violence presents a serious occupational safety hazard to CUNY and its employees. The University will respond promptly to threats and/or acts of violence. All employees are responsible for helping to create an environment of mutual respect and for assisting in maintaining a safe and secure work environment and will participate in the annual Workplace Violence Prevention Training Program. . Individuals who violate this Policy may be removed from University property and are subject to disciplinary and/or personnel action up to and including termination, consistent with University policies, rules and collective bargaining agreements, and/or referral to law enforcement authorities for criminal prosecution

Complaints involving Workplace Violence will not be ignored and will be given the serious attention they deserve. ${ }^{2}$
Employees are responsible for reporting any incidents of Workplace Violence of which they become aware. Such reports should be made to the employee's immediate supervisor or the Director of Public Safety on their campus.
The University, at the request of an employee or student, or at its own discretion, may prohibit members of the public, including family members, from seeing an employee or student on University property unless necessary to transact University-related business. This policy particularly applies when an employee or student anticipates that an act of violence may result from an encounter with said individual(s). ${ }^{3}$
Employee participation in the implementation of this Policy will be provided through their authorized employee representatives, who will be invited to participate in: (1) the annual physical risk assessment site evaluation(s) to determine the presence of risk factors which may place employees at risk of workplace violence; (2) the development and annual review of a Workplace Violence Prevention Program promulgated by each College for the implementation of the Policy; (3) the annual review of the Campus Workplace Violence Incidents Report prepared annually by each College; and (4) as
appropriate, following a serious incident of Workplace Violence.
${ }^{2}$ Complaints of sexual harassment are covered under the University's Policy Against Sexual Harassment.
${ }^{3}$ Students are not directly covered by this Policy, but they should contact the Department of Public Safety to report concerns about workplace violence.

## Notice of Access to Campus Crime Statistics, the Campus Security Report, and Information on Registered Sex Offenders

The College Advisory Committee on Campus Safety will provide upon request all campus crime statistics as reported to the U.S. Department of Education, as well as the annual campus security report. The campus security report includes:

1. the campus crime statistics for the most recent calendar year and the two preceding calendar years;
2. campus policies regarding procedures and facilities to report criminal actions or other emergencies on campus;
3. policies concerning the security of and access to campus facilities;
4. policies on campus law enforcement;
5. a description of campus programs to inform students and employees about campus security procedures and practices and to encourage students and employees to be responsible for their own security and the security of others;
6. campus crime prevention programs;
7. policy concerning the monitoring through the police of criminal activity at off-campus locations of students organizations officially recognized by the college;
8. policies on illegal drugs, alcohol, and underage drinking;
9. where information provided by the State on registered sex offenders may be obtained (also see below); and
10. policies on campus sexual assault programs aimed at the prevention of sex offenses and procedures to be followed when a sex offense occurs. This information is maintained pursuant to the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act.

The campus crime statistics and the annual campus security report are available at the Reference Desk of the library and the College website at $w w w$.lehman.edu. If you wish to be mailed copies of the campus crime statistics and the annual campus security report, contact Alicia Cruz, assistant director of public safety, at 718-960-8593, and copies will be mailed to you within 10 days. The U.S. Department of Education's website address for campus crime statistics is:
ope.ed.gov/security/ (then input the name of the school).

In accordance with the federal Campus Sex Crimes
Prevention Act, registered sex offenders now are required to register the name and address of any college at which he or she is a student or employee. The New York State Division of Criminal Justice maintains a registry of convicted sex offenders and informs the college's chief security (public safety) officer of the presence on campus of a registered sex offender as a student or employee. You may contact Alicia Cruz, assistant director of public safety, in Room 109 of the APEX (718-960-8593) to obtain information about Level 2 or Level 3 registered sex offenders on campus. To obtain information about Level 3 offenders, visit the Division's registry website at www.criminaljustice.ny.gov/nsor/ and then click on "Search for Level 3 Sex Offenders" or access the directory at the College's public safety department or police precinct. To obtain information about Level 2 offenders, contact the public safety department, the local police precinct in which the offender resides or attends college, or the Division's sex offender registry at 800-262-3257.

## Athletic Program Participation Notice

Lehman College files an annual report with the U.S. Secretary of Education on intercollegiate athletics that includes information on the participation of males and females on its teams, and the expenditures and revenues of those teams. Copies of the annual report on intercollegiate athletics are available at the reference desk of the Library.

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[^0]:    - Bachelor's degree (or its equivalent) from an accredited college or university.

[^1]:    - Project Seminar (3 credits): ESC 708 (3)

